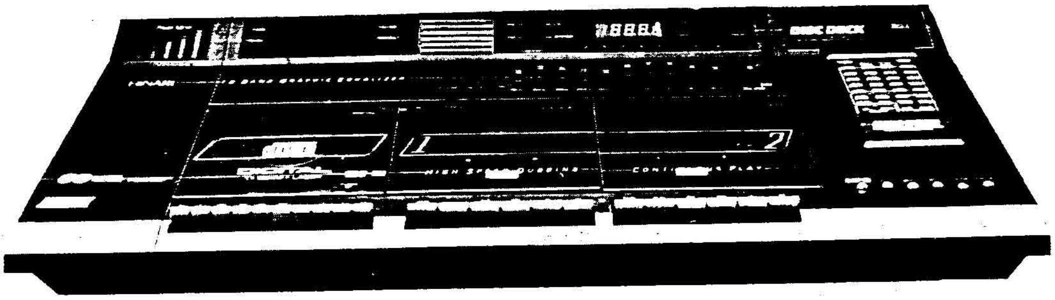
HINARI

Service Manual

DK 200



**THE QUALITY OF
THIS MANUAL IS
THE BEST THAT
IS AVAILABLE**

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SPECIFICATIONS

TUNER

Antenna	AM Ferrite
	FM Wire Type
Tuning Range	FM 87.5-108 MHZ
	MW 531-1602KHZ
	LW 153-281 KHZ

CASSETTE SECTION

Tape Speed	4.75 cm/Per s.
Recording	AC Bias AC Erase

Continuous Play from Tape 2 to Tape 1

CD SECTION

Harmonic Distortion	Less Than 1% (1KHZ)
Wow and Flutter	Quartz Crystal Precision
Speaker Impedance	4Ω
Output Power	20W
Power Supply	AC-240V 50HZ
Power Consumption	70W
Tone Control	10 Band Graphic
Remote Control Battery Type	Size AA
Phono Input	Ceramic Cartridge Type

ALIGNMENT PROCEDURE

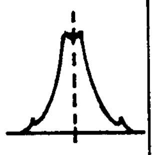
MODEL: DK200

GENERAL ALIGNMENT CONDITIONS

1. Signal input must be kept as low as possible to avoid overload and clipping.
2. Signal input should be kept as low as possible to avoid A.G.C. action.
3. Marker insertion and amplitude should not distort the oscillator and amplitude.
4. Standard Modulation is 400 Hz 30%.

INSTRUMENTS REQUIRED

Signal source	Output indicators
* AM Signal Generator	* AC Millivolt Meter
* Radio Sweep Generator	* Oscilloscope
* Sweep Oscilloscope	

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR -	SET SIGNAL OR INSERT MARKER	SET FREQUENCY DISPLAY TO	ADJUST	ADJUST FOR
1.	Set Function Selector Switch on the Front Panel to "MW" position.					
2.	Sweep Generator connected to a 100p or short piece of wire placed near AM Antenna.	Sweep Oscilloscope connected to R447	See Amplitude of 450 KHz	Quiet point on band near 531 KHz	L405 L408	450 KHz 
3.	Signal Generator connected to a loop.	AC Millivolt Meter and Oscilloscope connected across speaker.	603 KHz	Display 603KHz	MW OSC COIL L406	Maximum
4.						
5.						
6.			1404 KHz	Display 1404 KHz	MW RF Trimmer TC-403	
7.	Repeat step 3 through 6 as necessary to obtain maximum insitivity on station.					
8.	Set Function Selector Switch on the Front Panel to "LW" position.					
9.	Signal Generator connected to a loop	AC Millivolt Meter and Oscilloscope connected across Speaker				Maximum
10.						
11.			170 KHz	Display 170 KHz	L407 LW OSC Coil	
12.			260 KHz	Display 260 KHz	LW RF TRIMMER TC-402	
13.	Repeat step 9 through 12 as necessary to obtain maximum sensitivity on station.					

ALIGNMENT PROCEDURE

MODEL: DK200

GENERAL ALIGNMENT CONDITION

1. Signal input must be kept as low as possible to avoid overload and clipping.
2. Markets must be accurate (Crystal controlled or calibrated). The 10.7 MHz Market used in each section of the FM alignment must be the same.
3. Signal input should be kept as low as possible to avoid limiter action.
4. Standard modulation is 1 KHz 30% (22.5 KHz).

INSTRUMENTS REQUIRED

Signal sources

* FM Signal Generator
* Radio Sweep Generator
* Sweep Oscilloscope

Output indicators

* AC Millivolt Meter
* Oscilloscope

STEP	CONNECT SIGNAL SOURCE TO	CONNECT OUTPUT INDICATOR TO -	SET SIGNAL OR INSERT MARKER	SET FREQUENCY DISPLAY TO	ADJUST	ADJUST FOR -
1.	Set Function Selector Switch on the Front Panel to FM position.					
2.	Radio Sweep Generator connected to FM Antenna Terminals	Oscilloscope connected to R447	10.7 MHz	Quiet point on band	L403	Maximum gain with symmetrical curve peaked at 10.7 MHz marker
3.			10.6, 10.7 10.8 MHz Marker		L409	Straightness and symmetry of "S" curve with 10.7 MHz marked at zero crossover.
4.	Repeat step 2 through 3 as necessary to obtain maximum gain and selectivity.					
5.	FM Signal Generator output coupled to FM Antenna Terminal	AC Millivolt Meter & Oscilloscope connected across loudspeaker load				Maximum
6.						
7.						
8.			106 MHz	Display 106 MHz	RF Trimmer TC-401	

ALIGNMENT PROCEDURE

MODEL: DK200

GENERAL ALIGNMENT CONDITION

1. Adjust FM-Signal generator output to 1 mV (60dB) with MPX modulation 1 KHz
2. Deviation = 32.5 KHz Pilot = 7.5 KHz

INSTRUMENTS REQUIRED

Signal source	Output indicator
* FM Signal generator	* Frequency counter
* Stereo Signal generator	* AC millivolt meter
	* Oscilloscope

STEP	CONNECT SIGNAL SOURCE TO -	CONNECT OUTPUT INDICATOR TO -	SET SIGNAL	SET FREQUENCY DISPLAY	ADJUST	ADJUST FOR -
1.	Set function selector switch on the front panel to FM position.					
2.	FM signal generator connected to FM antenna terminals	Frequency counter connected to MPX test point IC403 pin 12 (LA3361)	98 MHz modulation off. pilot signal off.	98 MHz	SFR-401 (10KB)	19.00 KHz +/- 50 Hz
3.		AC millivolt meter connected across loudspeaker load L & R	98 MHz	98 MHz	check	more than 25dB of separation is obtained between R and L channels

INSTRUMENT REQUIRED

1. Dual trace oscilloscope.
2. Dual trace AC millivolt meter.
3. Frequency counter.

STEP		MEASURING INSTRUMENT ARRANGEMENT	TEST TAPE	ADJUST POINT	ADJUSTMENT
1.	Azimuth and phase	Take out the signal from loudspeaker load L & R NOTE: graphic EQ. must at center position.	MTT-114 (10KHZ-10DB)	Screw at left side of R/P head	Adjust to maximum output and synchronize phase
2.	Tape speed		MTT-111 (3khz-10DB)	semi - fixed resistor inside motor	Adjust to 3 khz +-3% at frequency counter display
3.	Tape hi-speed		MTT-111	SFR-901 (50KB)	adjust to 4.8Khz +-3% at frequency counter display * condition: Tape 2 play model tape 1 rec model hi speed switch "on"

ELECTRICAL PARTS LIST
MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
C-111-117-1123-129-137	CC-7094T	POLYATYRENE CONDENSER 50V 0.47uf
C-141-151-181-182	CC-9173T	ELECT. CONDENSER 16V 6.8uf
C-103-105-115-140-153-154-155-158	CC-9052T	ELECT. CONDENSER 16V 33uf
C-169-170	CC-9042	ELECT. CONDENSER 16V 100uf
C-120-124	CC-9054T	ELECT. CONDENSER 16V 220uf
C-149	CC-9120T	ELECT. CONDENSER 50V 2.2uf
R-111	CR-0041	SEMI FIXED RESISTOR 1KB
R-115	CR-0043	SEMI FIXED RESISTOR 20KB
R-129	CR-2151HT	CARBON FILM RESISTOR 1/4W 4.7 OHM
R-120	CR-2196HT	CARBON FILM RESISTOR 1/4W 27 OHM
R-183	CR-2202HT	CARBON FILM RESISTOR 1/4W 39 OHM
R-121	CR-2193HT	CARBON FILM RESISTOR 1/4W 47 OHM
R-128-220-221	CR-2216HT	CARBON FILM RESISTOR 1/4W 82 OHM
R-114-137	CR-2125TH	CARBON FILM RESISTOR 1/4W 100 OHM
R-202-203	CR-2152HT	CARBON FILM RESISTOR 1/4W 180 OHM
R-136	CR-2127HT	CARBON FILM RESISTOR 1/4W 220 OHM
R-110	CR-2182HT	CARBON FILM RESISTOR 1/4W 330 OHM
R-210-211	CR-2128HT	CARBON FILM RESISTOR 1/4W 470 OHM
R-194-200-201	CR-2150HT	CARBON FILM RESISTOR 1/4W 680 OHM
R-189	CR-2188HT	CARBON FILM RESISTOR 1/4W 820 OHM
R-131-132-182-204-205-216-217	CR-2119HT	CARBON FILM RESISTOR 1/4W 1K OHM
R-186	CR-2271HT	CARBON FILM RESISTOR 1/4W 750 OHM
R-206-207	CR-2102HT	CARBON FILM RESISTOR 1/4W 1.2K OHM
R-106-180-149	CR-2129HT	CARBON FILM RESISTOR 1/4W 2.2K OHM
R-192	CR-2130HT	CARBON FILM RESISTOR 1/4W 2.7K OHM
R-187	CR-2189HT	CARBON FILM RESISTOR 1/4W 3.3K OHM
R-156	CR-2186HT	CARBON FILM RESISTOR 1/4W 3.9K OHM
R-101-146-213	CR-2120HT	CARBON FILM RESISTOR 1/4W 4.7K OHM
R-196	CR-2278HT	CARBON FILM RESISTOR 1/4W 3K OHM
R-105	CR-2155HT	CARBON FILM RESISTOR 1/4W 6.8K OHM
R-141	CR-2132HT	CARBON FILM RESISTOR 1/4W 8.2K OHM
R-154-159-177-178-188-215	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-124	CR-2285HT	CARBON FILM RESISTOR 1/4W 11K OHM
R-103-126	CR-2133HT	CARBON FILM RESISTOR 1/4W 12K OHM
R-174	CR-2168HT	CARBON FILM RESISTOR 1/4W 15K OHM
R-104-130	CR-2104HT	CARBON FILM RESISTOR 1/4W 18K OHM
R-155-157-158-160-163-164-165-166	CR-2191HT	CARBON FILM RESISTOR 1/4W 22K OHM
R-167-168-169-170-171-172-181-208	CR-2191HT	CARBON FILM RESISTOR 1/4W 22K OHM
R-209-212-214	CR-2191HT	CARBON FILM RESISTOR 1/4W 22K OHM
R-150-151-161	CR-2163HT	CARBON FILM RESISTOR 1/4W 39K OHM
R-147-148-176	CR-2140HT	CARBON FILM RESISTOR 1/4W 47K OHM
R-162	CR-2292HT	CARBON FILM RESISTOR 1/4W 51K OHM
R-142	CR-2156HT	CARBON FILM RESISTOR 1/4W 56K OHM
R-144	CR-2293HT	CARBON FILM RESISTOR 1/4W 62K OHM
R-125-152-153	CR-2171HT	CARBON FILM RESISTOR 1/4W 82K OHM
R-117	CR-2294HT	CARBON FILM RESISTOR 1/4W 91K OHM
R-102-145-175-179-190	CR-2187HT	CARBON FILM RESISTOR 1/4W 100K OHM
R-118	CR-2179HT	CARBON FILM RESISTOR 1/4W 120K OHM
R-143	CR-2296HT	CARBON FILM RESISTOR 1/4W 130K OHM
R-123	CR-2160HT	CARBON FILM RESISTOR 1/4W 150K OHM
R-119-140	CR-2297HT	CARBON FILM RESISTOR 1/4W 160K OHM
R-133	CR-2106HT	CARBON FILM RESISTOR 1/4W 220K OHM
R-116	CR-2170HT	CARBON FILM RESISTOR 1/4W 390K OHM
R-109	CR-2165HT	CARBON FILM RESISTOR 1/4W 680K OHM
R-108	CR-2166HT	CARBON FILM RESISTOR 1/4W 1M OHM
R-218-219	CR-2211HT	CARBON FILM RESISTOR 1/4W 4.7M OHM
R-122-127-138-139	CR-2338HT-1	FUSIBLE FILM RESISTOR 1/4W 1 OHM
R-173	CR-2339HT-1	FUSIBLE FILM RESISTOR 1/4W 2.2 OHM
R-184-191-193-195	CR-2342HT-1	FUSIBLE FILM RESISTOR 1/4W 4.7 OHM
R-134-135-198-199	CR-2344HT-1	FUSIBLE FILM RESISTOR 1/4W 10 OHM
R-113	CR-2355HT-1	FUSIBLE FILM RESISTOR 1/4W 12 OHM
R-112	CR-2354HT-1	FUSIBLE FILM RESISTOR 1/4W 18 OHM

ELECTRICAL PARTS LIST
MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
INCLUDING	C3-4579C	CD DISPLAY P.C.BOARD ASS'Y COMPLETE
	C3-4579	CD DISPLAY P.C.BOARD
D-805	CS-5023	CD DISPLAY ASS'Y
D-801-802-803-804	CT-2166	LED LTL-4213
C-801-802	CC-9047M	ELECT. CONDENSER 16V 47uf
R-801-802	CR-2339HT-1	FUSIBLE FILM RESISTOR 1/4W 2.2 OHM
INCLUDING	C3-4580-1C	CD CONTROL P.C.BOARD ASS'Y COMPLELTE
S-901-902-903-904-905-906-907-908	CS-4314	TACT SWITCH
S-909-910	CS-4314	TACT SWITCH
INCLUDING	C3-4581D	DECODER B.C.BOARD ASS'Y COMPLETE
	C3-4581	DECODER P.C.BOARD
T-111	CT-1230T	TRANSISTOR BC328-16
T-101-112	CT-1236T	TRANSISTOR BC338
T-105-113-110-115-116	CT-1234T	TRANSISTOR BC548
T-106-114	CT-1235T	TRANSISTOR BC558
T-109	CT-1229T	TRANSISTOR BF450
T-102-108	CT-1228	TRANSISTOR BC-548B
T-103	CT-1232T	TRANSISTOR BC338-25
T-104	CT-1233T	TRANSISTOR Bc328-25
T-107	CT-1223T	TRANSISTOR BC558B
IC-105	CT-4201	IC MAB8441P?T107
IC-101	CT-4217	IC TDA5708
IC-102	CT-4219	IC TDA5709
IC-106	CT-4202	IC SAA7210
IC-103	CT-4218	IC L272 (SGS)
IC-108	CT-4216	IC TDA1543
IC-104-109-110	CT-4205	IC NLM4560D
IC-107	CT-4203	IC TMS4416-15NL
D-105	CT-2163T	ZENER DIODE HZ7A3
D-106	CT-2164T	ZENER DIODE HZ5B1
D-101-102	CT-2170T	ZENER DIODE HZ7C2
D-103-104	CT-2059T	DIODE IN4148
X-102	CW-4113	QUARTZ CRYSTAL 11.2896 MHz
X-101	CW-4114	CERAMIC RESONATOR 6 MHz
L-102-103	CW-4120	COIL 1000uH
L-101	CW-4119	COIL 4.7uH
C-142-143-148-156-157	CC-3182T	CERAMIC CONDENSER 50V 47pf NPO
C-110-114	CC-3057T	CERAMIC CONDENSER 50V 100pf NPO
C-102	CC-3036T	CERAMIC CONDENSER 50V 470pf NPO
C-147	CC-3183T	CERAMIC CONDENSER 50V 1800pf
C-132-113	CC-3115T	CERAMIC CONDENSER 50V 0.0047uf
C-101-104-106-121-125-127-128-139	CC-3151T	CERAMIC CONDENSER 50V 0.022uf
C-146-145-154-159-176	CC-3151T	CERAMIC CONDENSER 50V 0.022uf
C-126	CC-6005T	BARRIER LAYER CONDENSER 50V 0.0022uf
C-107	CC-6010T	BARRIER LAYER CONDENSER 50V 0.0056uf
C-108	CC-6013T	BARRIER LAYER CONDENSER 50V 0.01uf
C-179-180	CC-7065T	POLYSTYRENE CONDENSER 50V 0.0022uf
C-133-134	CC-7067T	POLYSTYRENE CONDENSER 50V 0.0033uf
C-122	CC-7070T	POLYSTYRENE CONDENSER 50V 0.0047uf
C-138	CC-7072	POLYSTYRENE CONDENSER 50V 0.0068uf
C-171-172	CC-7074T	POLYSTYRENE CONDENSER 50V 0.01uf
C-130	CC-7059T	POLYSTYRENE CONDENSER 50V 0.018uf
C-177-188	CC-7059	POLYSTYRENE CONDENSER 50V 0.018uf
C-119	CC-7086T	POLYSTYRENE CONDENSER 50V 0.1uf
C-112	CC-7088T	POLYSTYRENE CONDENSER 50V 0.15uf
C-135-173-174	CC-7089T	POLYSTYRENE CONDENSER 50V 0.18uf
C-116-131-136	CC-7090T	POLYSTYRENE CONDENSER 50V 0.22uf
C-109	CC-7091T	POLYSTYRENE CONDENSER 50V 0.27uf

ELECTRICAL PARTS LIST

MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
	C3-4585-1M	MAIN P.C.BOARD ASS'Y
	C3-4584-1	MAIN P.C.BOARD
Q-301-302-303-304-305-306-307	CT-1063	TRANSISTOR 2SC828R
Q-308-309-310-312-314-315-316	CT-1063	TRANSISTOR 2SC828R
Q-317-318	CT-1123	TRANSISTOR 2SC2634S
Q-311-313	CT-1240	TRANSISTOR 2SK212E
Q-309	CT-1083	TRANSISTOR 2SC1317R
IC-302	CT-4209	IC IC9157 AP
IC-301	CT-4208	IC TD6104P
IC-303-304-305-308	CT-4225	IC LB1213
IC-306	CT-4228	IC TC 9134P
IC-307	CT-4226	IC 78N06
IC-309	CT-4227	IC 78N07
IC-301	CT-4212	IC 78L10
IC-311-312-313-314	CT-4231	IC TA7796P
D-301-302-303-304-305-306-307	CT-2059T	DIODE IN4148
D-308-309-310-311-312-313-314	CT-2059T	DIODE IN4148
D-315-316-317-318-319-320-321-322	CT-2059T	DIODE IN4148
CF-302	CW-4122V	CERAMIC RESONATOR 500B
CF-301	CW-4117	X'TAL 7.2MHz
S-301 A--F	CS-4340	FUNCTION / HI-SPEED SWITCH 6KEY
VR-301-302-303-304-305-306-307	CR-1240	SLIDE VARIABLE RESISTOR 100KBx2
VR-308-309-310	CR-1240	SLIDE VARIABLE RESISTOR 100KBx2
VR-311	CR-1237	SLIDE VARIABLE RESISTOR 100KW
C-304-305-307	CC-3177T	CERAMIC CONDENSER 50V 33pf
C-312-313	CC-3057T	CERAMIC CONDENSER 50V 100pf
C-359-380	CC-3085T	CERAMIC CONDENSER 50V 330PF
C-357-358	CC-3080T	CERAMIC CONDENSER 50V 680pf
C-337-338-363-364	CC-3105T	CERAMIC OCNDENSER 50V 0.001uf
C-310	CC-3096T	CERAMIC CONDENSER 50V 0.0022uf
C-306-311-314-315-316-317-303-308	CC-3084T	CERAMIC CONDENSER 50V 0.01uf
C-302-327-330-331-393	CC-3120T	CERAMIC CONDENSER 25v 0.1uf
C-355-356	CC-4013T	MYLAR CONDENSER 50V 0.0015uf
C-353-354	CC-4021T	MYLAR CONDENSER 50V 0.0027uf
C-391-392	CC-4003T	MYLAR CONDENSER 50V 0.0033uf
C-351-352	CC-4015T	MYLAR CONDENSER 50V 0.0056uf
C-389-390-371-372	CC-4010T	MYLAR CONDENSER 50V 0.0068uf
C-349-350	CC-4040T	MYLAR CONDENSER 50V 0.012uf
C-387-388	CC-4020T	MYLAR CONDENSER 50V 0.015uf
C-347-348-325-326	CC-4011T	MYLAR CONDENSER 50V 0.022uf
C-385-386	CC-4018T	MYLAR CONDENSER 50V 0.027uf
C-345-346	CC-4007T	MYLAR CONDENSER 50V 0.047uf
C-383-384	CC-4019T	MYLAR CONDENSER 50V 0.056uf
C-343-344	CC-4077T	MYLAR CONDENSER 50V 0.082uf
C-301	CC-9201	GOLD CONDENSER 5.5V 0.1uf
C-328	CC-9014T	ELECT. CONDENSER 10V 470uf
C-320-321-329-361-362-367-368	CC-9083HT	ELECT. CONDENSER 16V 22uf
C-309-369	CC-9047T	ELECT. CONDENSER 16V 47uf
C-322-370	CC-9042T	ELECT. CONDENSER 16V 100uf
C-339-340-365-394-366	CC-9080T	ELECT. CONDENSER 25V 4.7uf
C-335-336	CC-9087T	ELECT. CONDENSER 25V 10uf
C-381-382	CC-9190T	ELECT. CONDENSER 50V 0.12uf
C-341-342	CC-9189T	ELECT. CONDENSER 50V 0.18uf
C-379-380	CC-9140T	ELECT. CONDENSER 50V 0.22uf
C-323-324	CC-9069T	ELECT. CONDENSER 50V 0.47uf n.p.
C-377-378	CC-9147T	ELECT. CONDENSER 50V 0.47uf
C-375-376	CC-9188T	ELECT. CONDENSER 50V 0.82uf
C-319-332-333-334	CC-9098T	ELECT. CONDENSER 50V 1uf
C-373-374	CC-9187T	ELECT. CONDENSER 50V 1.8uf
C-318	CC-9120T	ELECT. CONDENSER 50V 2.2uf

MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
R-332-334	CR-2181HT	CARBON FILM RESISTOR 1/4W 56 OHM
R-302	CR-2125HT	CARBON FILM RESISTOR 1/4W 100 OHM
R-307-308-313-316-335-336-365-366	CR-2127HT	CARBON FILM RESISTOR 1/4W 220 OHM
R-361-362	CR-2188HT	CARBON FILM RESISTOR 1/4W 820 OHM
R-339	CR-2119HT	CARBON FILM RESISTOR 1/4W 1K OHM
R-311-317-338-369-370-371	CR-2129HT	CARBON FILM RESISTOR 1/4W 2.2K OHM
R-363-364-367-368	CR-2120HT	CARBON FILM RESISTOR 1/4W 4.7K OHM
R-309-314	CR-2155HT	CARBON FILM RESISTOR 1/4W 6.8K OHM
R-304-305-306-310-312-315-321	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-322-323-324-325-325-327-328	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-329-330-331-357-358	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-343-344-353-354-355-356	CR-2168HT	CARBON FILM RESISTOR 1/4W 15K OHM
R-341-342	CR-2140HT	CARBON FILM RESISTOR 1/4W 47K OHM
R-319-320-345-346-349-350	CR-2156HT	CARBON FILM RESISTOR 1/4W 56K OHM
R-301-303-318	CR-2187HT	CARBON FILM RESISTOR 1/4W 100K OHM
R-347-348-351-352	CR-2143HT	CARBON FILM RESISTOR 1/4W 470K OHM
R-359-360	CR-2176HT	FILM RESISTOR 1/4W 2.2M OHM
R-333-337	CR-2355HT-1	FUSIBLE METAL RESISTOR 1/4W 12 OHM
R-340	CR-2347HT-1	FUSIBLE METAL RESISTOR 1/4W 22 OHM
RA-302	CR-3097	RESISTOR NETWORK 8PIN 1/8W 560 OHM
RA-301-303-304	CR-3098	RESISTOR NETWORK 8PIN 1/8W 1.2K OHM
INCLUDING	CB-4585B	TUNER / R/P EQ P.C.BOARD ASS'Y COMPLETE
	CB-4585	TUNER / R/P EQ P.C.BOARD
Q-410-411	CT-1012	TRANSISTOR 2SC829B
Q-401	CT-1041	TRANSISTOR 2SC1359B
Q-402-406-407	CT-1063	TRANSISTOR 2SC828R
Q-403-404-405-408-409-901-906	CT-1084	TRANSISTOR 2SA719R
Q-902-903-904	CT-1083	TRANSISTOR 2SC1317R
IC-401	CT-4127	IC TA7358P
IC-402	CT-4224	IC TA7758P
IC-403	CT-4069	IC LA3361
IC-901	CT-4174	IC LA3226T
IC-902	CT-4156	IC TA7784P
D-401-402	CT-2172	VARIABLE CAPACITANCE DIODE SVC201
D-409-413	CT-2169	VARIABLE CAPACITANCE DIODE SVC321
D-403-404-405-406-407-408-410	CT-2059T	DIODE IN4148
D-411-412-414-415-416-417	CT-2059T	DIODE IN4148
D-418-902	CT-2059T	DIODE IN4148
D-901	CT-2048H	DIODE IN4002
BF-401	CW-4080	FM ANT FILTER BPWB5
CF-401-403	CW-4062A	FM IF FILTER 10.7MHz (RED)
CF-402	CW-4074	AM IF FILTER SFU450B
RY-901	CS-9158	REED RELAY
L-401	CW-1031	FM RF COIL
L-402	CW-8036	FM OSC COIL
L-901	CW-8117-4	TAPE OSC COIL
L-403	CW-5078-1	FM IFT COIL
L-409	CW-5081-1	FM DET COIL
L-404	CW-2116	MW/LW BAR ANT COIL
L-406	CW-3118-1	MW OSC COIL
L-407	CW-3119-1	LW OSC COIL
L-405-408	CW-5093-1	AM IFT COIL
CT-402	CC-0008	TRIMMER CONDENSER 30PF
CT-401-403	CC-0010	TRIMMER CONDENSER 6pf
C-412	CC-3112T	CERAMIC CONDENSER 50V 5pf
C-406	CC-3128T	CERAMIC CONDENSER 50V 7pf
C-409	CC-3092T	CERAMIC CONDENSER 50V 10pf

ELECTRICAL PARTS LIST
MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
C-411	CC-3177T	CERAMIC CONDENSER 50V 33pf NPO
C-402-463	10-0239T	CERAMIC CONDENSER 50V 5pf
C-403	10-9122T	CERAMIC CONDENSER 50V 10pf
C-416	10-9123T	CERAMIC CONDENSER 50V 15pf
C-428	CC-3039T	CERAMIC CONDENSER 50V 22pf
C-426	CC-3038T	CERAMIC CONDENSER 50V 47pf
C-907-908	CC-3057T	CERAMIC CONDENSER 50V 100pf
C-434-973-938	CC-3036T	CERAMIC CONDENSER 50V 470pf
C-401-413-421	CC-3105T	CERAMIC CONDENSER 50V 0.001uf
C-404-408-417-429-433-438-439-440-457	CC-3084T	CERAMIC CONDENSER 50V 0.01uf
C-405-407-410-414-430-435-441-462	CC-3076T	CERAMIC CONDENSER 50V 0.02uf
C-418-419-420-422-458-459-460	CC-3120T	CERAMIC CONDENSER 25V 0.1uf
C-929-930-931-932	CC-4061T	MYLAR CONDENSER 50V 0.001uf
c-913-914	CC-4043T	MYLAR CONDENSER 50V 0.0015uf
C-903-904	CC-4003T	MYLAR CONDENSER 50V 0.0033uf
C-451-452-917-920	CC-4001T	MYLAR CONDENSER 50V 0.0047uf
C-918-925-926	CC-4053T	MYLAR CONDENSER 50V 0.01uf
C-448	CC-4007T	MYLAR CONDENSER 50V 0.047uf
C-425	CC-5014	POLYSTYRENE CONDENSER 50V 150pf
C-424	CC-5022	POLYSTYRENE CONDENSER 50V 330pf
C-445	CC-5069	POLYSTYRENE CONDENSER 50V 1000pf
C-939	CC-7012T	POLYSTYRENE CONDENSER 100V 0.0082uf
C-432-454-461-919-923-924-933	CC-9083T	ELECT. CONDENSER 16V 22uf
C-905-916	CC-9047MT	ELECT. CONDENSER 16V 47uf
C-453-909-910-915-921-922-940	CC-9042MT	ELECT. CONDENSER 16V 100uf
C-936	CC-9038	ELECT. CONDENSER 16V 470uf
C-446-449-450-901-902-911	CC-9080MT	ELECT. CONDENSER 25V 4.7uf
C-912-927-928-934	CC-9080MT	ELECT. CONDNESER 25V 4.7uf
C-415-427-431-437-906-935	CC-9087MT	ELECT. CONDENSER 25V 10uf
C-443-444	CC-9069MT	ELECT. CONDENSER 25V 0.47uf
C-442-447	CC-9098MT	ELECT. CONDENSER 50V 1uf
C-436	CC-9120MT	ELECT. CONDENSER 50V 2.2uf
SFR-401	CR-0042	SEMI FIXED RESISTOR 10KB
SFR-901	CR-0044	SEMI FIXED RESISTOR 50KB
R-445	CR-2201HT	CARBON FILM RESISTOR 1/4W 22 OHM
R-913	CR-2203HT	CARBON FILM RESISTOR 1/4W 33 OHM
R-905-906	CR-2181HT	CARBON FILM RESISTOR 1/4W 56 OHM
R-402-915-916	CR-2125HT	CARBON FILM RESISTOR 1/4W 100 OHM
R-433	CR-2101HT	CARBON FILM RESISTOR 1/4W 150 OHM
R-915-918	CR-2152HT	CARBON FILM RESISTOR 1/4W 180 OHM
R-413-441-442	CR-2127HT	CARBON FILM RESISTOR 1/4W 220 OHM
R-911	CR-2149HT	CARBON FILM RESISTOR 1/4W 270 OHM
R-420	CR-2182HT	CARBON FILM RESISTOR 1/4W 330 OHM
R-436	CR-2128HT	CARBON FILM RESISTOR 1/4W 470 OHM
R-406-903-904	CR-2188HT	CARBON FILM RESISTOR 1/4W 820 OHM
R-410-411-412-414-415-416-419	CR-2119HT	CARBON FILM RESISTOR 1/4W 1k OHM
R-437-444-940	CR-2119HT	CARBON FILM RESISTOR 1/4W 1K OHM
R-421	CR-2199HT	CARBON FILM RESISTOR 1/4W 1.8K OHM
R-909-910	CR-2129HT	CARBON FILM RESISTOR 1/4W 2.2K OHM
R-439-440-447	CR-2189HT	CARBON FILM RESISTOR 1/4W 3.3K OHM
R-405-430-432-931-937	CR-2120HT	CARBON FILM RESISTOR 1/4W 4.7K OHM
R-422-438	CR-2155HT	CARBON FILM RESISTOR 1/4W 6.8K OHM
R-407-408-409-435-448-449-933-936	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-921-922	CR-2133HT	CARBON FILM RESISTOR 1/4W 12K OHM
R-927-928-929-939-944	CR-2168HT	CARBON FILM RESISTOR 1/4W 15K OHM
R-425-925-926	CR-2104HT	CARBON FILM RESISTOR 1/4W 18K OHM
R-423-425-428-901-907	CR-2191HT	CARBON FILM RESISTOR 1/4W 22K OHM
R-908-919-920-934-935	CR-2191HT	CARBON FILM RESISTOR 1/4W 22K OHM
R-401-403	CR-2157HT	CARBON FILM RESISTOR 1/4W 33K OHM

MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
	C3-4587P	POWER P.C.BOARD ASS'Y COMPLETE
	C3-4587	POWER P.C.BOARD
Q-505	CT-1239	TRANSISTOR 2SD1266P
Q-503-504	CT-1063	TRANSISTOR 2SC828R
Q-501-502	CT-1123	TRANSISTOR 2SC2634S
IC-501	CT-4229	IC IDA1521
IC-502	CT-4230	IC M51523AL
IC-503	CT-4199	IC 7805CT
IC-504	CT-4198	IC 7905CT
D-501	CT-2099T	ZENER DIODE GZA13Z
D-506-507-508-509-510-511-512-513-	CT-2048H	RECTIFIER DIODE IN4002
D-502-503-504-505	CT-3025-1	RECTIFIER DIODE IN5392
C-521-522	CC-3036T	CERAMIC CONDENSER 50V 470pf
C-535-536-537-538-539-540-541	CC-3076T	CERAMIC CONDENSER 50V 0.022uf
C-542-543-544-545-546	CC-3076T	CERAMIC CONDENSER 50V 0.022uf
C-505-506	CC-4011T	MYLAR CONDENSER 50V 0.022uf
C-510	CC-9058T	ELECT. CONDENSER 25V 220uf
C-518-520-525-526-527-528	CC-9083T	ELECT. CONDENSER 16V 22uf
C-517-519-523	CC-9047T	ELECT. CONDENSER 16V 47uf
C-524-533	CC-9042T	ELECT. CONDENSER 16V 100uf
C-532	CC-9170	ELECT. CONDENSER 16V 1000uf
C-531	CC-9171	ELECT. CONDENSER 16V 4700uf
C-501-502-503-504-513-514-515-516	CC-9080T	ELECT. CONDENSER 25V 4.7uf
C-507-508	CC-9085	ELECT. CONDENSER 25V 1000uf "RT"
C-534	CC-9060	ELECT. CONDENSER 25V 2200uf "RT"
C-509-511-512	CC-9098T	ELECT. CONDENSER 50V 1uf
C-529-530	CC-9075	ELECT. CONDENSER 50V 2200uf "RT"
R-501-502	CR-2246HT	CARBON FILM RESISTOR 1/4W 8.2 OHM
R-520-521	CR-2127HT	CARBON FILM RESISTOR 1/4W 220 OHM
R-509-510	CR-2184HT	CARBON FILM RESISTOR 1/4W 560 OHM
R-505-506-523	CR-2119HT	CARBON FILM RESISTOR 1/4W 1K OHM
R-515-516	CR-2129HT	CARBON FILM RESISTOR 1/4W 2.2K OHM
R-507-508	CR-2120HT	CARBON FILM RESISTOR 1/4W 4.7K OHM
R-517-518-519	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-511-512	CR-2157HT	CARBON FILM RESISTOR 1/4W 33K OHM
R-513-514	CR-2106HT	CARBON FILM RESISTOR 1/4W 220K OHM
R-503-504	CR-2142HT	CARBON FILM RESISTOR 1/4W 330K OHM
F-502-503-504	CS-9119-1	FUSE 800mA
F-501	CS-9113-1	FUSE 3.15A
	CS-1039	FUSE HOLDER
	C2-3110	SQUARE WIRE PIN
	CW-7193	POWER TRANSFORMER

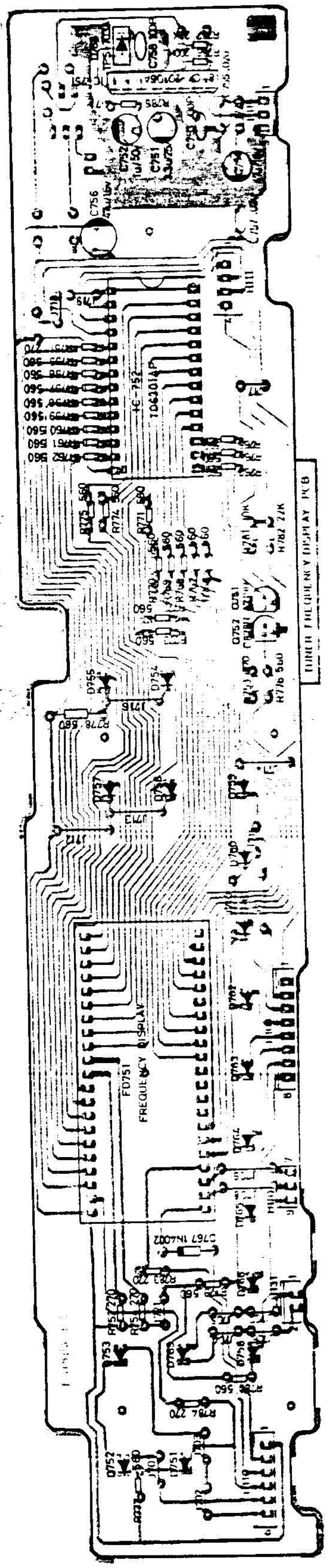
ELECTRICAL PARTS LIST

MODEL: DK-200

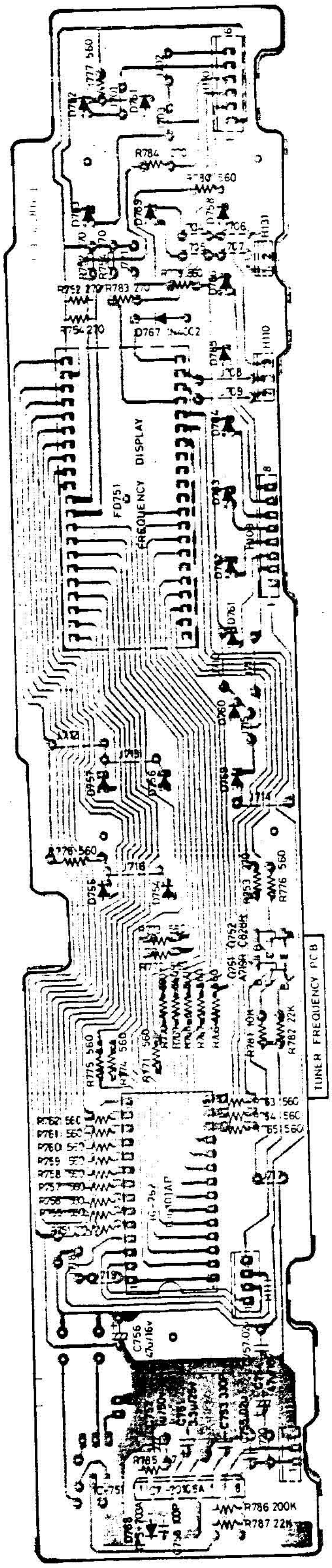
SYMBOL NO.	PART NO.	DESCRIPTION
R-912-930-932-938	CR-2140HT	CARBON FILM RESISTOR 1/4W 47K OHM
R-902	CR-2156HT	CARBON FILM RESISTOR 1/4W 56K OHM
R-426-427	CR-2141HT	CARBON FILM RESISTOR 1/4W 68K OHM
R-417-418-424-434-903	CR-2187HT	CARBON FILM RESISTOR 1/4W 100K OHM
R-941	CR-2179HT	CARBON FILM RESISTOR 1/4W 120K OHM
R-404-429	CR-2106HT	CARBON FILM RESISTOR 1/4W 220K OHM
R-923-924	CR-2142HT	CARBON FILM RESISTOR 1/4W 330K OHM
R-431	CR-2176HT	CARBON FILM RESISTOR 1/4W 2.2M OHM
R-914	CR-2340HT-1	FUSIBLE METAL RESISTOR 1/4W 3.3 OHM
	C3-4585C	POWER METER P.C.BOARD ASS'Y
IC-601	CT-4122	IC BA6137
D-601-602-603-604-605	CT-2145	L.E.D. LTL-3211A
C-602	CC-3084T	CERAMIC CONDENSER 50V 0.01uf
C-603	CC-9042	ELECT. CONDENSER 16V 100uf
C-601	CC-9087	ELECT. CONDENSER 25V 10uf
R-601	CR-2101HT	CARBON FILM RESISTOR 1/4W 150 OHM
R-604	CR-2119HT	CARBON FILM RESISTOR 1/4W 1K OHM
R-602-603	CR-2103HT	CARBON FLIM RESISTOR 1/4W 10K OHM
	C3-4584D	HEAD PHONE P.C.BOARD ASS'Y
HJ-701	CS-7058	HEAD PHONE JACK
R-701-702	CR-2128HT	CARBON FILM RESISTOR 1/4W 470 OHM
	C3-4585E	MIC P.C.BOARD ASS'Y
MJ-301-302	CS-2056	MIC JACK
	C3-4585G	POWER SWITCH P.C.BOARD ASS'Y
S-701	CS-4309	POWER SWITCH
C-701	CC-3107	CERAMIC CONDENSER 400V 4700pf
	C2-3082	EYELET
	C3-4586-1	TUNER FREQUENCY DISPLAY P.C.BOARD ASS'Y
Q-751	CT-1084	TRANSISTOR 2SA719R
Q-752	CT-1063	TRANSISTOR 2SC828R
IC-752	CT-4210	IC TD6301AP
IC-751	CT-4157	IC CX20106A
D-767	CT-2048H	DIODE IN4002
D-768	CT-2155	PHOTE DIODE TPS-703A
D-751-752-753-754-755-756-757-758-759	CT-2146	LED LTL-3271A
D-760-761-762-763-764-765-766-769	CT-2146	LED LTL-3271A
FD-751	CS-5024	FREQUENCY DISPLAY LTC-4502YKK
C-758	CC-3057T	CERAMIC CONDENSER 50V 100pf
C-753	CC-3085T	CERAMIC CONDENSER 50V 330pf
C-755-757	CC-3076T	CERAMIC CONDENSER 50V 0.022uf
C-754-756	CC-9047MT	ELECT. CONDENSER 16V 47uf
C-751	CC-9086MT	ELECT. CONDENSER 25V 3.3uf
C-752	CC-9098MT	ELECT. CONDENSER 50V 1uf
R-785	CR-4060HT	CARBON FILM RESISTOR 1/16W 4.7 OHM
R-751-752-753-754-783-784	CR-4061HT	CARBON FILM RESISTOR 1/16W 270 OHM
R-755-756-757-758-759-760-761-762-763	CR-4058HT	CARBON FILM RESISTOR 1/16W 560 OHM
R-764-765-766-767-768-769-770-771-772	CR-4058HT	CARBON FILM RESISTOR 1/16W 560 OHM
R-773-774-775-776-777-779-780	CR-4058HT	CARBON FILM RESISTOR 1/16W 560 OHM
R-781	CR-4035HT	CARBON FILM RESISTOR 1/16W 10K OHM
R-782-787	CR-4052HT	CARBON FILM RESISTOR 1/16W 22K OHM
R-786	CR-4062HT	CARBON FILM RESISTOR 1/16W 200K OHM
R-778	CR-2184HT	CARBON FILM RESISTOR 1/4W 560 OHM

MODEL : DK-200

(TOP VIEW)


TUNER FREQUENCY DISPLAY PCB
FD751
FREQUENCY DISPLAY
IC-752
D767 1N4002
C756
R776 560
R778 560
R781 10K
R782 22K
D752
D753
D755
D751

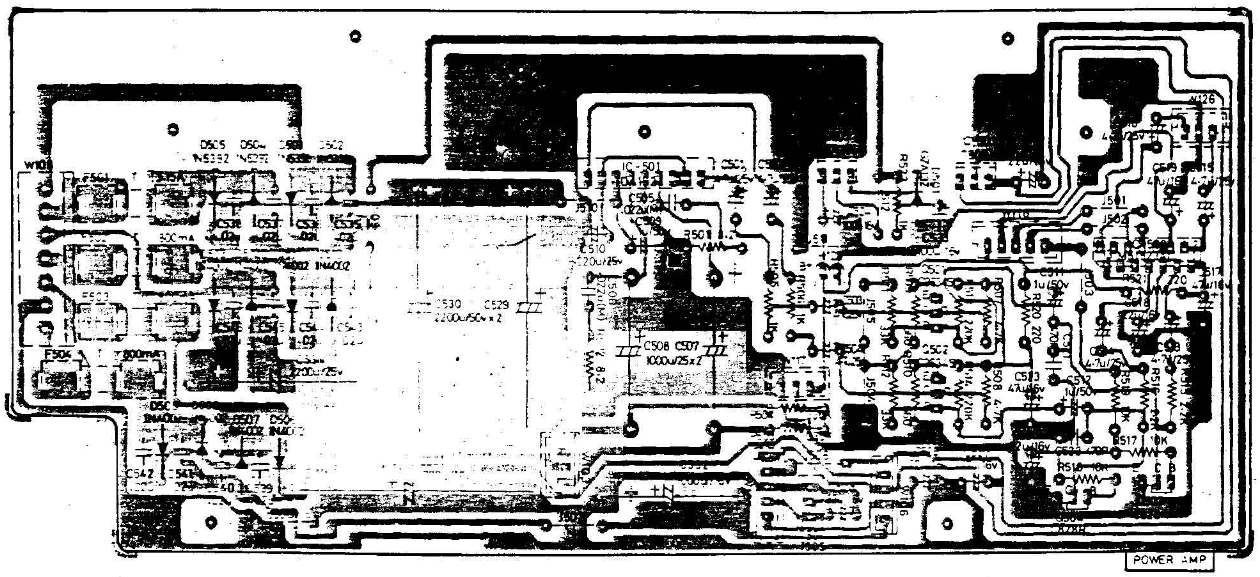
(BOTTOM VIEW)


TUNER FREQUENCY PCB
FD751
FREQUENCY DISPLAY
R777 560
R784
R780 560
R783 270
R752 270
R754 270
D767 1N4002
R778 560
R776 560
R781 10K
R782 22K
R775 560
R774 560
R771 560
R762 560
R761 560
R760 560
R759 560
R758 560
R757 560
R756 560
C756 47u/16v
R785
R786 200K
R787 22K

POWER AMP P. C. BOARD ASS'Y

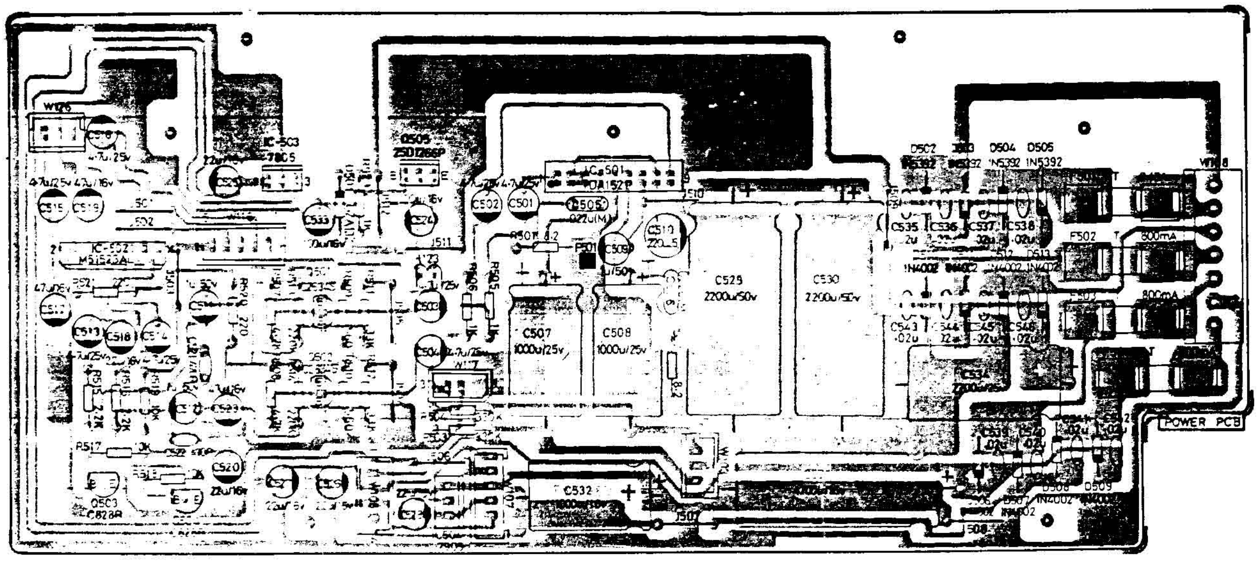
MODEL: DK-200

(BOTTOM VIEW)



W108
F501
F503
F504
D505
D504
D502
1N5392
800mA
IC-501
C505
C510
C530
C529
2200u/50v x 2
C508
C507
1000u/25v x 2
R501
J501
J502
C511
C512
C513
R516
R517
R518
C542
1N4002
D507
W126
POWER AMP

(TOP VIEW)

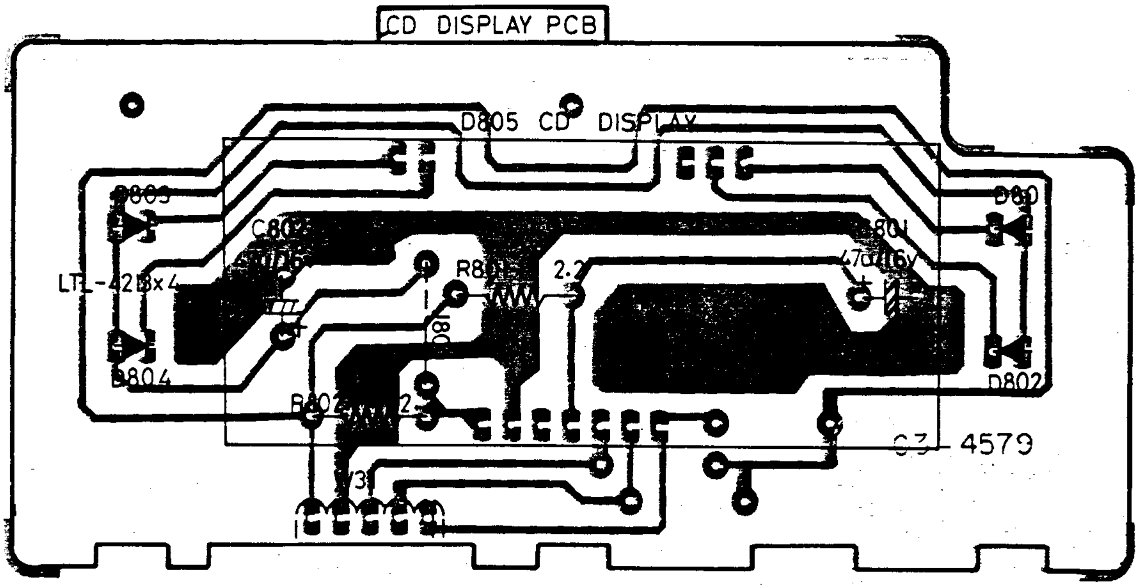


W126
IC-503
7805
Q505
2SD1266P
IC-501
C502
C501
C505
C509
C510
C529
2200u/50v
C530
2200u/50v
C507
1000u/25v
C508
1000u/25v
C532
D502
D503
D504
D505
1N5392
W108
F502
800mA
IC-502
M51523AL
C515
C519
C517
C513
C518
C514
C520
R517
Q503
C828R
C535
C536
C537
C538
C543
1N4002
D508
D509
POWER PCB

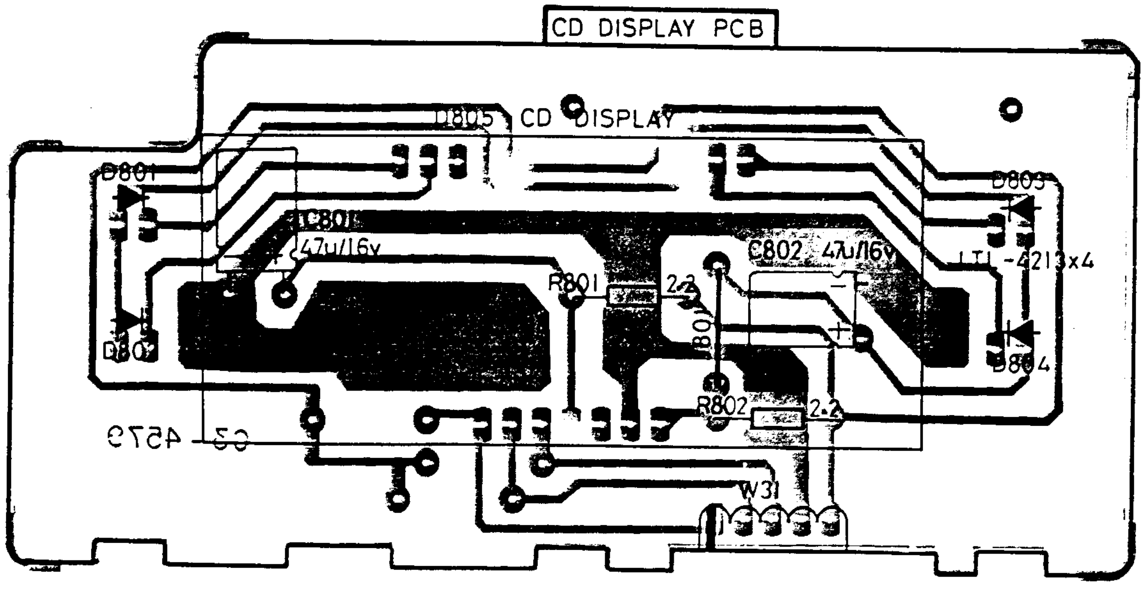
CD DISPLAY P.C. BOARD ASS'Y

MODEL: DK-200

(BOTTOM VIEW)


CD DISPLAY PCB
D805 CD DISPLAY
D803
C802
47u/16v
LTL-4213x4
R801
2.2
180
D804
R802
2.2
W31
1
C801
47u/16v
D801
D802
C3-4579

(TOP VIEW)


CD DISPLAY PCB
D805 CD DISPLAY
D801
C801
47u/16v
R801
2.2
180
C802 47u/16v
D803
LTL-4213x4
D802
D804
R802
2.2
W31
C3-4579

MECHANICAL PARTS LIST

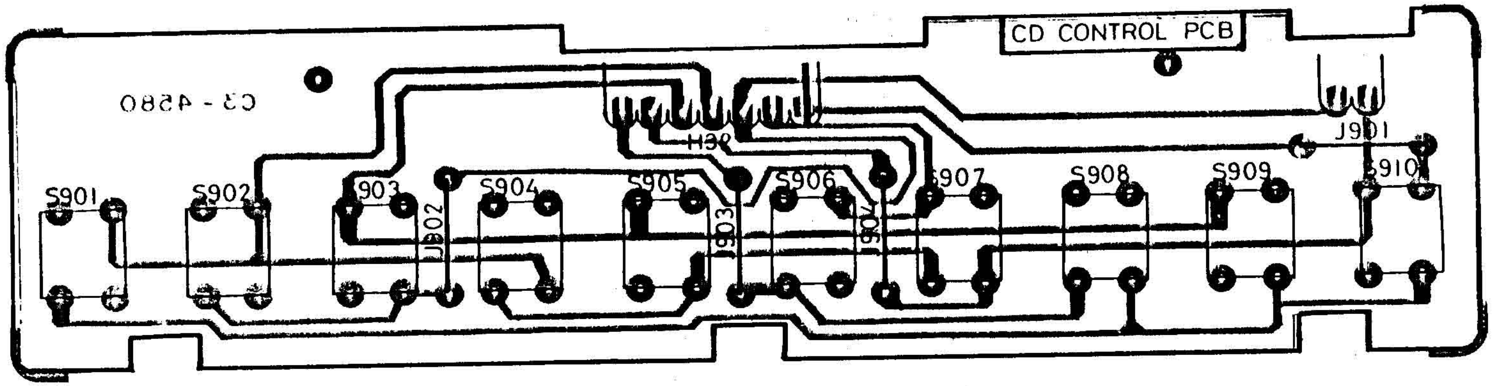
MODEL : DK-200

NO.	PART NO.	DESCRIPTION
1.	C3-0067	FP. PANEL
2.	C3-3074	DOOR COVER
3.	C1-3768	FLY WHEEL
4.	C3-7038	CLAMPER ACETAL)
5.	C3-8551	CD DOOR
6.	C3-8552	CASSE. DOOR (A)
7.	C3-8553	CASSE. DOOR (B)
8.	CS-7233	REMOTE HAND SET
9.	C1-2288	EJECT SPRING (B)
10.	C1-2286	EJECT SPRING (A)
11.	C1-2289	EJECT SPRING (C)
12.	C3-3066	POWER KNOB ASS'Y
13.	C1-2287	CLAMPER SPRING
14.	C3-7041	DOOR LOCK
15.	C3-6303	POWER SWITCH COVER
16.	C3-6319	POWER METER PLATE
17.	C3-6320	CD DISPLAY PLATE
18.	C3-6318	TUNING DISPLAY PLATE
19.	C3-6321	SENSER PLATE
20.	C3-6328	REMOTE CONTROL PLATE
21.	C3-3067	EQ KNOB
22.	C3-3065	CD KNOB
23.	CS-7224	CD ASS'Y CDM-4
24.	C3-3073	MOUNTING PLATE
25.	CS-2386	TAPE COUNTER
26.	CS-4315	LEAF SWITCH (CD)
27.	C3-7025	GEAR DAMPER
28.	C3-3075	CASSE. KEY (STOP/EJECT)
29.	C3-3080	CASSE. KEY (REC.)
30.	C3-3077	CASSE. KEY (REW)
31.	C3-3078	CASSE. KEY (F.F.)
32.	C3-3070	CASSE. KEY (PLAY)
33.	C3-3076	CASSE. KEY (PAUSE)
34.	C3-3079	CASSE. KEY (CONTIN. PLAY)
35.	CS-4337	LEAF SWITCH (PLAY)
36.	CS-7225	CASSE. DECK ASS'Y
37.	CS-4336	LEAF SWITCH (REC)
38.	C3-3071	REC. LEVER
39.	CS-7229	DC MOTOR
40.	C3-7042	MOTOR PULLEY
41.	CS-7225-2	DAMPER-MOTOR
42.	CS-7225-3	HOLDER (MOTOR)
43.	C3-3064	FUNCTION KNOB
44.	C1-3766	PCB BRACKET
45.	C3-3089	SPACE
46.	C2-7007	HEAT SINK PLATE (B)
47.	C3-7003	HEAT SINK PLATE (A)
48	C2-7010	SHIELD PAPER
49.	C4-2108	FIBER SHEET
50.		
51	C3-0043	BOTTOM COVER
52.	C4-4105	FOOT RUBBER
53.	CS-1097	SP. TERMINAL 4P
54.	CS-1100	TERMINAL BOARD 4P
55.	CS-3314	AC CORD

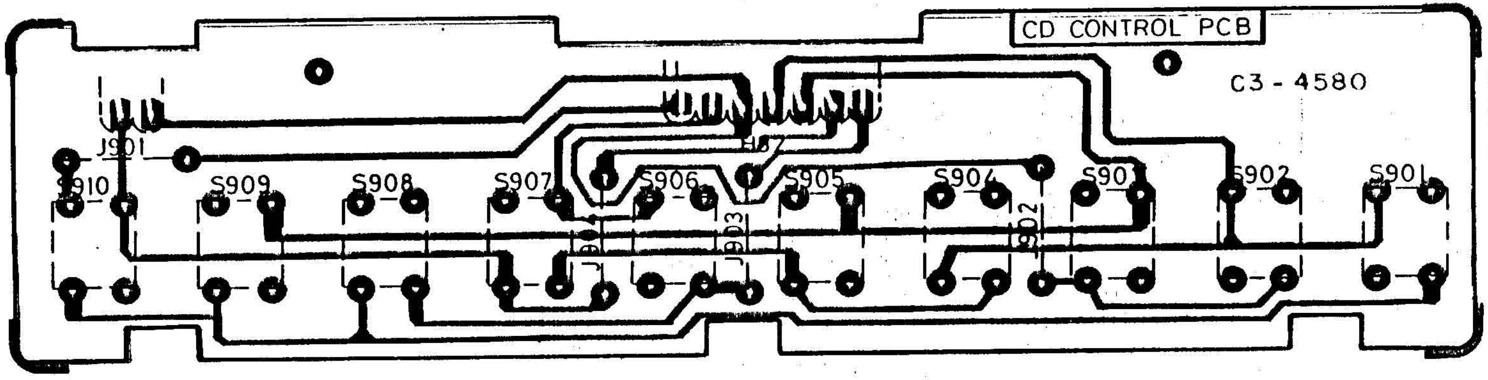
CD CONTROL P.C.BOARD ASS'Y

MODEL : DK - 200

(TOP VIEW)

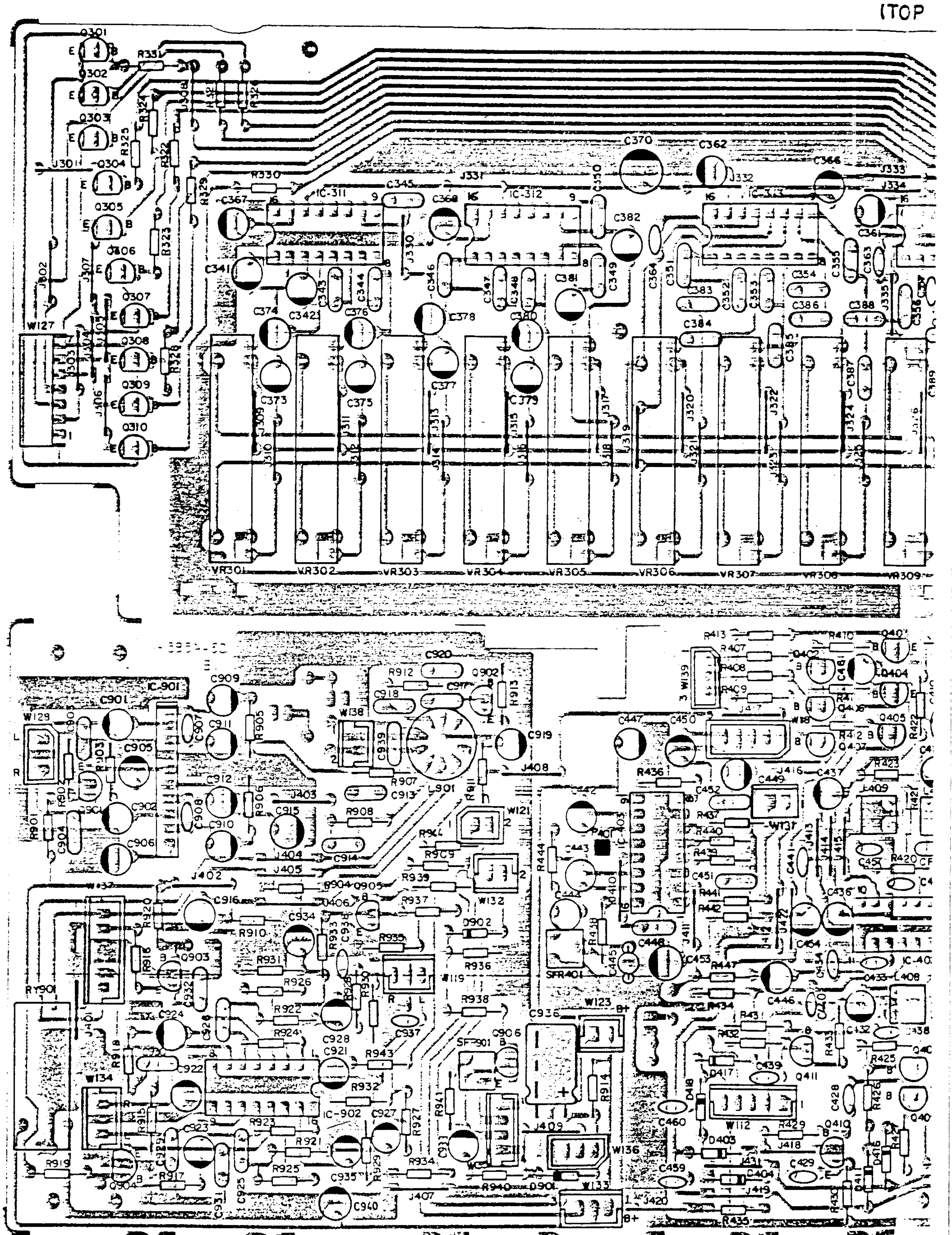

CD CONTROL PCB
C3 - 4580
J901
S901
S902
S903
S904
S905
S906
S907
S908
S909
S910
J902
J903
J904

(BOTTOM VIEW)


CD CONTROL PCB
C3 - 4580
J901
S910
S909
S908
S907
S906
S905
S904
S903
S902
S901
J904
J903
J902

MODEL:

(TOP


Q301
Q302
Q303
Q304
Q305
Q306
Q307
Q308
Q309
Q310
R331
W127
IC-311
IC-312
IC-313
C370
C362
C366
VR301
VR302
VR303
VR304
VR305
VR306
VR307
VR308
VR309
IC-901
IC-902
IC-403
W129
W138
W139
W132
W121
W119
W123
W134
W136
W133
W112
L901
RY901
SFR401
SFP901
C940
J407
J408
J409
J420
B+
R701
R702
MJ301
MJ302
W101
HJ701
S701
C701
D701
H102
C3-4585 (G)

MAIN P.C.BOARD ASS'Y

MODEL : DK-200

(TOP VIEW)

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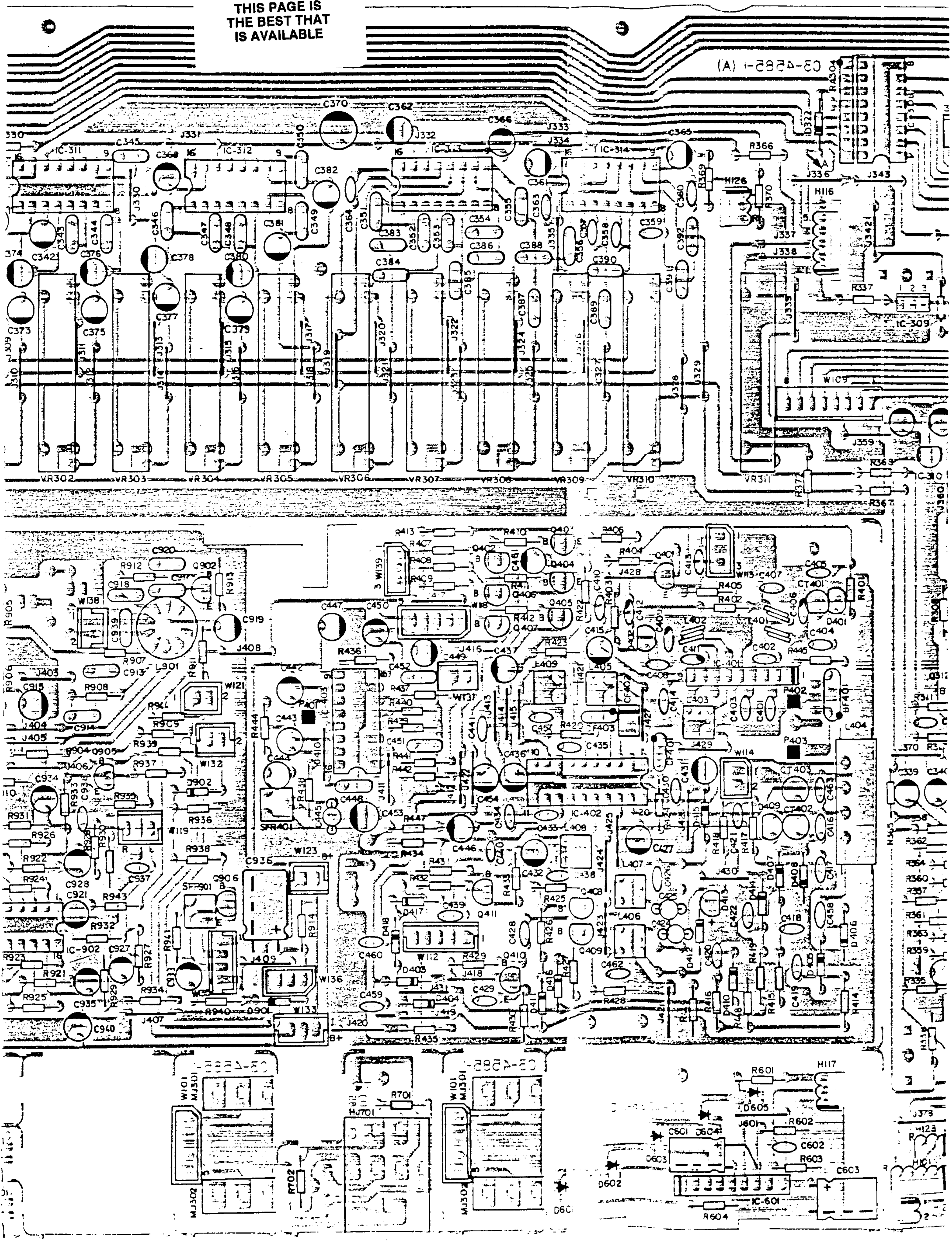
03-4585-1 (A)
IC-311
IC-312
IC-313
IC-314
IC-309
IC-310
C370
C362
C366
C365
C345
C368
C382
C361
C364
C351
C383
C352
C353
C354
C386
C355
C363
C388
C357
C358
C359
C360
C392
C384
C385
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J326
J327
J328
J329
J359
R366
R369
R370
R337
R363
R367
R372
R304
D322
H126
H116
W109
VR302
VR303
VR304
VR305
VR306
VR307
VR308
VR309
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VR311
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D416
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D418
IC-401
IC-402
IC-403
P401
P402
P403
SFR401
W113
W114
W118
W131
W139
W112
J403
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J405
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R905
R906
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R912
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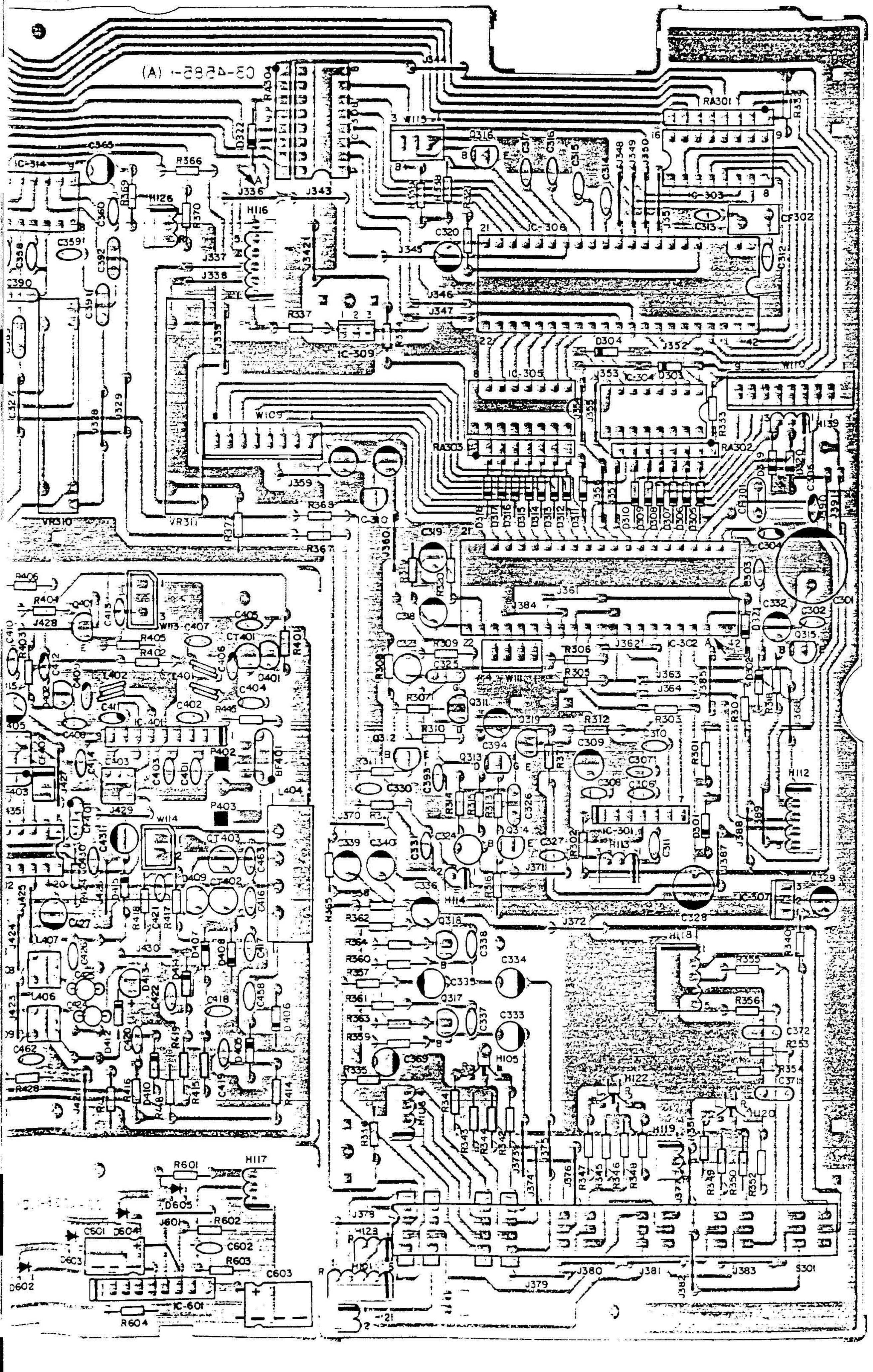
Q901
Q902
Q904
Q905
Q906
C913
C914
C915
C917
C918
C919
C920
C921
C927
C928
C933
C934
C935
C936
C937
C939
C940
D902
L901
IC-902
SFP901
W119
W121
W123
W132
W133
W136
W138
J407
B+
C339
C340
R362
R364
R360
R357
R361
R363
R359
R335
R331
J370
J373
J360
H117
H123
H101
W101
MJ301
MJ302
HJ701
R701
R702
03-4585-1
R601
R602
R603
R604
C601
C602
C603
D602
D603
D604
D605
J601
IC-601

ARD ASSY
DK-200
VIEW)



C3-4585-1 (A)
RA304
D322
CT306
J344
RA301
R33
W115
Q316
C317
C316
C315
C314
J348
J349
J350
IC-303
CF302
C313
J351
IC-308
C320
C312
J345
J346
J347
IC-314
C365
R366
R369
H126
R370
C360
J336
J343
H116
J3421
C359
C392
C358
J337
J338
C390
C391
R337
IC-309
J339
D304
J352
J353
IC-304
D303
IC-305
W110
R333
RA302
RA303
H139
W109
C327
J328
J329
J359
J360
R369
C310
R367
R377
VR310
VR311
D318
D317
D316
D315
D314
D313
D312
D311
D310
D309
D308
D307
D306
D305
C319
C304
C301
C302
C332
Q315
D321
D503
J361
J384
C38
IC-302
J362
J363
J364
J385
D302
R306
R305
R303
R309
C325
W111
R307
Q311
R310
Q312
Q319
R312
C309
C394
Q313
R311
C330
C393
R314
R315
R313
C326
R37
C307
C308
C306
R301
H112
J388
J389
IC-301
D301
R302
H113
C311
J387
J370
C339
C340
C331
C324
Q314
C327
J371
R316
C328
IC-307
C329
J372
R340
H118
R355
R356
C372
R353
R354
IC371
R365
R362
R364
R360
R357
R361
R363
R359
R358
C336
H114
Q318
C338
C335
C334
Q317
C337
C333
C369
H105
R335
R341
R343
R344
R342
R318
H106
J373
J374
J376
R347
R345
R346
R348
H122
H119
H120
R351
R349
R350
R352
J377
J378
H123
H101
J379
J380
J381
J382
J383
S301
R406
R404
Q401
J428
C413
W113
C407
C405
R405
R402
CT401
R401
C410
R403
C412
L402
L401
C406
D401
C404
C402
R445
C411
C408
IC-401
C403
C401
P402
BF401
C414
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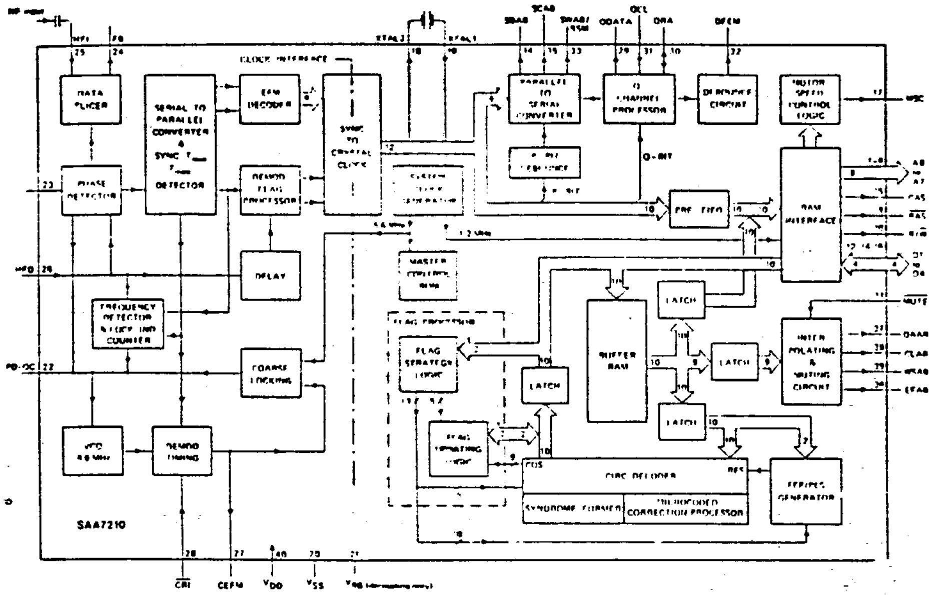
J429
P403
W114
L404
CT403
C463
C416
CT402
D409
C431
J425
R418
C421
R417
C427
J424
L407
J430
D407
D408
C417
J423
L406
C426
C422
C418
C458
D406
C420
R419
D405
C462
R428
J421
R416
D410
R48
R415
C419
R414
R601
H117
D605
J601
R602
C601
D604
C602
C603
D602
R603
C603
IC-601
R604

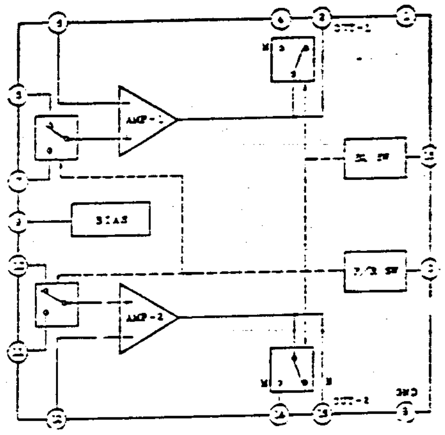
MODEL: DK-2C0

C3-4585 MAIN P.C.BOARD

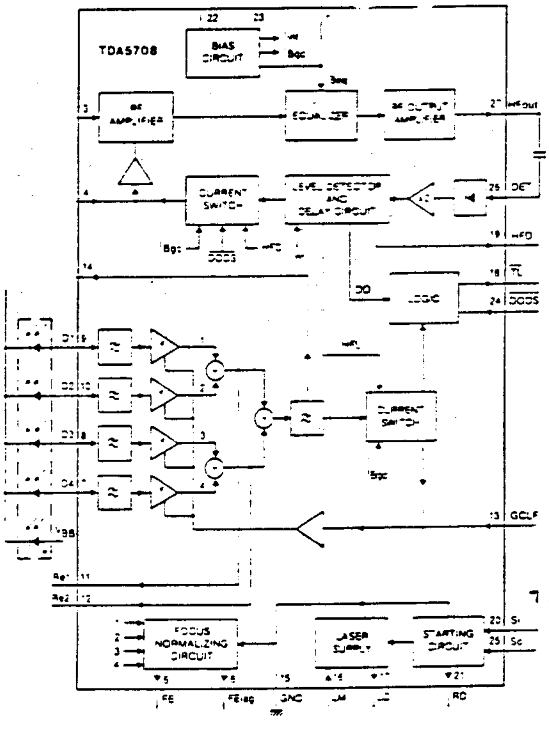
IC BLOCK DIAGRAMS


DATA SLICER
SERIAL TO PARALLEL CONVERTER & SYNC. DETECTOR
EFM DECODER
SYNC TO CRYSTAL CLOCK
PARALLEL TO SERIAL CONVERTER
Q CHANNEL PROCESSOR
DEMPHASIS CIRCUIT
MOTOR SPEED CONTROL LOGIC
PHASE DETECTOR
DEMOD FLAG PROCESSOR
SYSTEM CLOCK GENERATOR
PRE FIFO
RAM INTERFACE
DELAY
MASTER CONTROL
FREQUENCY DETECTOR & LOCK IND COUNTER
FLAG PROCESSOR
FLAG STRATEGY LOGIC
BUFFER RAM
LATCH
INTERPOLATING & MUTING CIRCUIT
COARSE LOCKING
FLAG UPDATING LOGIC
CIRC DECODER
SYNDROME FORMER
CORRECTION PROCESSOR
ERASURES GENERATOR
VCO
DEMOD TIMING
SAA7210
CRI
CEFM
VDD
VSS
Q-BIT
MUTE

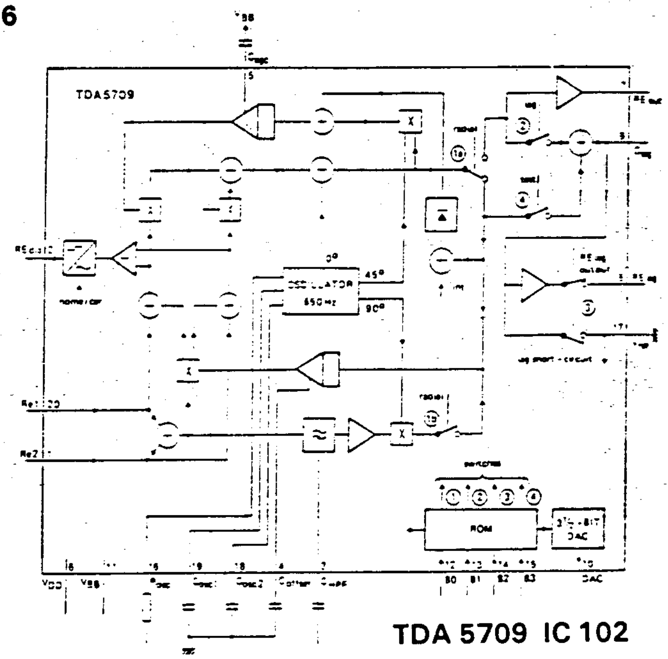
SAA 7210 IC 106


AMP-1
AMP-2
BIAS

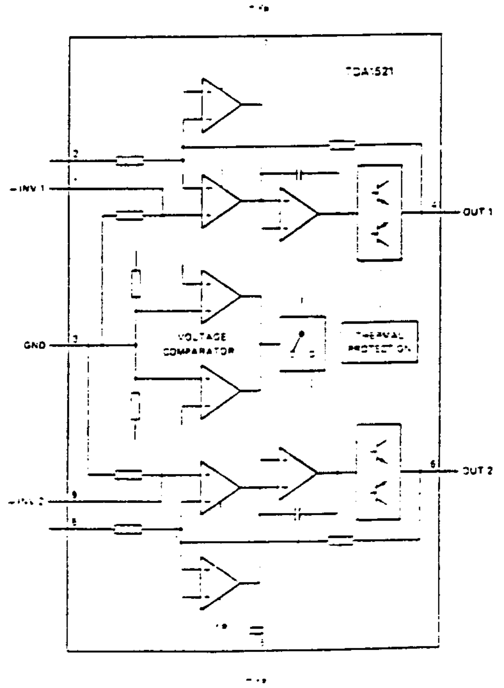
TA 7784 IC 902


TDA5708
BIAS CIRCUIT
RF AMPLIFIER
EQUALIZER
RF OUTPUT AMPLIFIER
RF out
CURRENT SWITCH
LEVEL DETECTOR AND DELAY CIRCUIT
DET
HFD
LOGIC
CURRENT SWITCH
GCLF
FOCUS NORMALIZING CIRCUIT
LASER SUPPLY
STARTING CIRCUIT
FE
FE-lag
GND
LM
RD

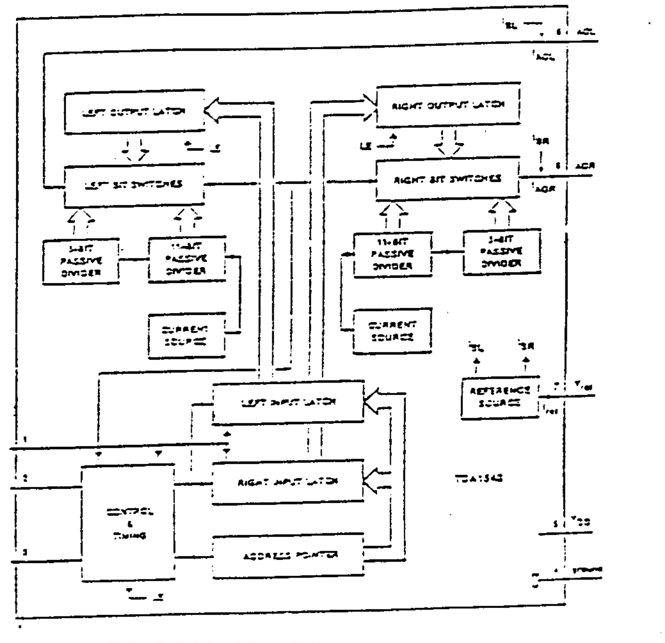
TDA 5708 IC 101


TDA5709
OSCILLATOR 650 kHz
45°
90°
ROM
DAC
switches
VDD
VSS

TDA 5709 IC 102


TDA1521
+INV 1
OUT 1
GND
VOLTAGE COMPARATOR
THERMAL PROTECTION
OUT 2

TDA 1521 IC 501


LEFT OUTPUT LATCH
RIGHT OUTPUT LATCH
LEFT BIT SWITCHES
RIGHT BIT SWITCHES
3-BIT PASSIVE DIVIDER
11-BIT PASSIVE DIVIDER
CURRENT SOURCE
REFERENCE SOURCE
LEFT INPUT LATCH
RIGHT INPUT LATCH
CONTROL & TIMING
ADDRESS POINTER
TDA1543
ACL
ACR
VDD

TDA 1543 IC 108

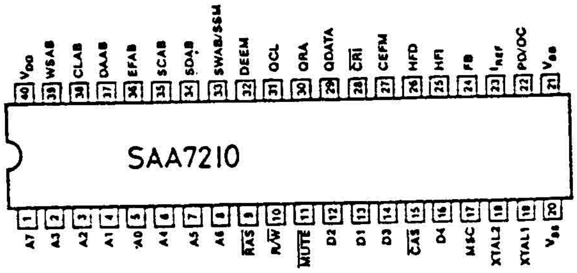
PIN DESCRIPTION

PIN NO.	MNEMONIC	DESCRIPTION
1 – 8	A0 – A7	**Address:** address outputs to external RAM.
9	$\overline{RAS}$	**Row Address Select:** output to external RAM (4416) which uses multiplexed address inputs.
10	$R/\overline{W}$	**Read/Write:** output signal to external RAM.
11	$\overline{MUTE}$	**Mute:** input from the microprocessor. When mute is LOW, the data output DAAB (Pin 37) is attenuated to zero in 15 successive divide-by-2 steps. On the rising edge of mute, the data output is incremented to the first "good" value in 2 steps. This input has an internal pull-up of 50kΩ (typ.).
12 – 14	D1 – D3	**Data:** data inputs/outputs to external RAM.
15	$\overline{CAS}$	**Column Address Select:** output signal to external RAM.
16	D4	**Data:** data input/output to external RAM.
17	MSC	**Motor Speed Control:** open-drain output which provides a pulse width modulated signal with a pulse rate of 88kHz to control the rate of data entry. The duty factor varies from 1.6% to 98.4% in 62 steps. When a motor-start signal is detected via Pin 33 (SWAB/SSM) the duty factor is forced to 98.4% for 0.2 seconds followed by a normal calculated signal. After a motor-stop signal is detected, the duty factor is forced to 1.6% for 0.2 seconds, followed by a continuous 50% duty factor.
18	XTAL2	**Crystal Oscillator Output:** drive output to clock crystal (11.2896MHz typ.).
19	XTAL1	**Crystal Oscillator Input:** input from crystal oscillator or slave clock.
20	V_{SS}	**Ground:** circuit ground potential.
21	V_{BB}	**Back Bias Supply Voltage:** back bias output voltage (−2.5V ± 20%). The internal back bias generator can be decoupled at this pin.
22	PD/OC	**Phase Detector Output/Oscillator Control Input:** outputs of the frequency detector and phase detector are summed internally, then filtered at this pin to provide the frequency control signal for the VCO.
23	I_{REF}	**Current Reference:** external reference input to the phase detector. This input is required to minimize the spread in the charge pump output of the phase detector. An internal clamp prevents the voltage on this pin from rising above 3.5V.
24	FB	**Feedback:** output from the input data slicer. This output is a current source of 100µA (typ.) which changes polarity when the level detector input at Pin 25 (HFI) rises above the threshold voltage of 2V (typical). When a data run length violation is detected (e.g., during drop-out), or when HFD (Pin 26) is LOW, this output goes to high impedance state.
25	HFI	**High-Frequency Input:** level detector input to the data slicer. A differential signal of between 0.25 and 2.5V (peak-to-peak value) is required to drive the data slicer correctly. When a T_{MAX} violation is detected or when HFD is LOW, this input is biased directly to its threshold voltage.
26	HFD	**High-Frequency Detector:** when HIGH, this input signal enables the frequency and phase detector inputs, also the feedback output (FB) from the data slicer. An internal voltage clamp of 3V (typical) requires the HFD input to be fed via a high impedance. This input has an internal pull-up of 50kΩ (typical).
27	CEFM	**Clock Eight-to-Fourteen Modulation:** demodulator clock output 4.3218MHz (typical).
28	$\overline{CRI}$	**Counter Reset Inhibit:** when LOW, this input signal allows the divide-by-588 master counter in the DEMOD timing to run free. This input has an internal pull-up of 50kΩ (typical).
29	QDATA	**Q-Channel Data:** this subcoding output is parity checked and changes in response to the Q-channel clock input (see subcoding microprocessor handshaking protocol).
30	QRA	**Q-Channel Request Input/Acknowledge Output:** the output has an internal pull-up of nominally 10kΩ. (See subcoding microprocessor handshaking protocol).
31	QCL	**Q-Channel Clock:** clock input generated by the microprocessor when it detects a QRA LOW signal.
32	DEEM	**De-emphasis:** signal derived from one bit of the parity-checked Q-channel and fed out via the debounce circuit.
33	SWAB/SSM	**Subcoding Word Clock Output and Start/Stop Motor Input:** open-drain output which is sensed during each HIGH period, and if externally forced LOW, a motor-stop condition will be decoded and fed to the motor control logic circuit.
34	SDAB	**Subcoding Data:** a 10-bit burst of data, including flags and sync bits, is output serially to the B-chip once per frame clocked by burst clock output SCAB' (see Figure 2).
35	SCAB	**Subcoding Clock:** a 10-bit burst clock 2.8224MHz (typ.) output which is used to synchronize the subcoding data.
36	EFAB	**Error Flag:** output from interpolation and mute circuit to B-chip indicating unreliable data.
37	DAAB	**Data:** this output which is fed to the B-chip or DAC, together with its clock (CLAB) and word select (WSAB) outputs, conforms to the I^2S bus format (see Figure 3).
38	CLAB	**Clock:** output to B-chip or DAC.
39	WSAB	**Word Select:** output to B-chip or DAC.
40	V_{DD}	**Power Supply:** positive supply voltage (+5V).

NOTE:

The pin sequence of the address outputs (A0 – A7) and the data outputs (D1 – D4) has been selected to be compatible with various dynamic 16K × 4-bit RAMs including the 4416.

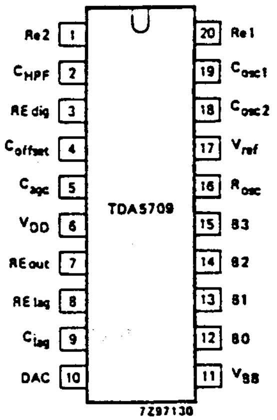
PIN CONFIGURATION



TDA5709:

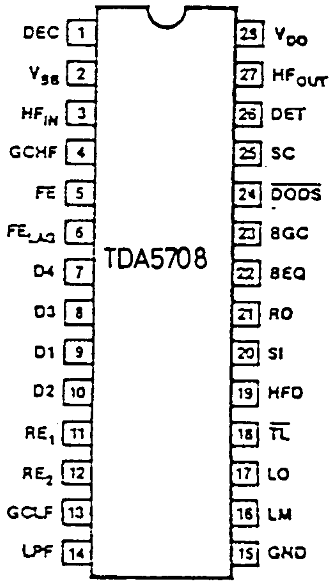
PIN DESCRIPTION

Pin No.	Symbol	Description
1	Re2	Input for amplified currents from photo diodes D1 and D2
2	C_{HPF}	High-pass filter for Re1 and Re2, used for radial offset control
3	REdig	Digital output of sign (Re2 − Re1)
4	C_{offset}	Offset control input for radial offset
5	C_{agc}	Gain control input for radial error signal
6	V_{DD}	Positive supply voltage
7	REout	Current output of amplified (Re2 − Re1) input currents
8	RElag	Voltage output of integrated (Re2 − Re1) input currents
9	C_{lag}	Integrator capacitor for (Re1 − Re2) input currents
10	DAC	Current output for track jumping (3½ bits)
11	V_{BB}	Negative supply connection (also substrate connection)
12	B0	Input control bits for off-, catch-, play-status and DAC output current
13	B1	
14	B2	
15	B3	
16	R_{osc}	Biassing resistor for oscillator frequency and internal amplitude
17	V_{ref}	Intermediate supply voltage
18	C_{osc2}	Frequency setting capacitors for oscillator
19	C_{osc1}	
20	Re1	Input for amplified currents from photo-diodes D3 and D4


Re2 1
CHPF 2
RE dig 3
Coffset 4
Cagc 5
VDD 6
REout 7
RElag 8
Clag 9
DAC 10
20 Re1
19 Cosc1
18 Cosc2
17 Vref
16 Rosc
15 B3
14 B2
13 B1
12 B0
11 VBB
TDA5709
7Z97130

TDA5708: PIN DESCRIPTION

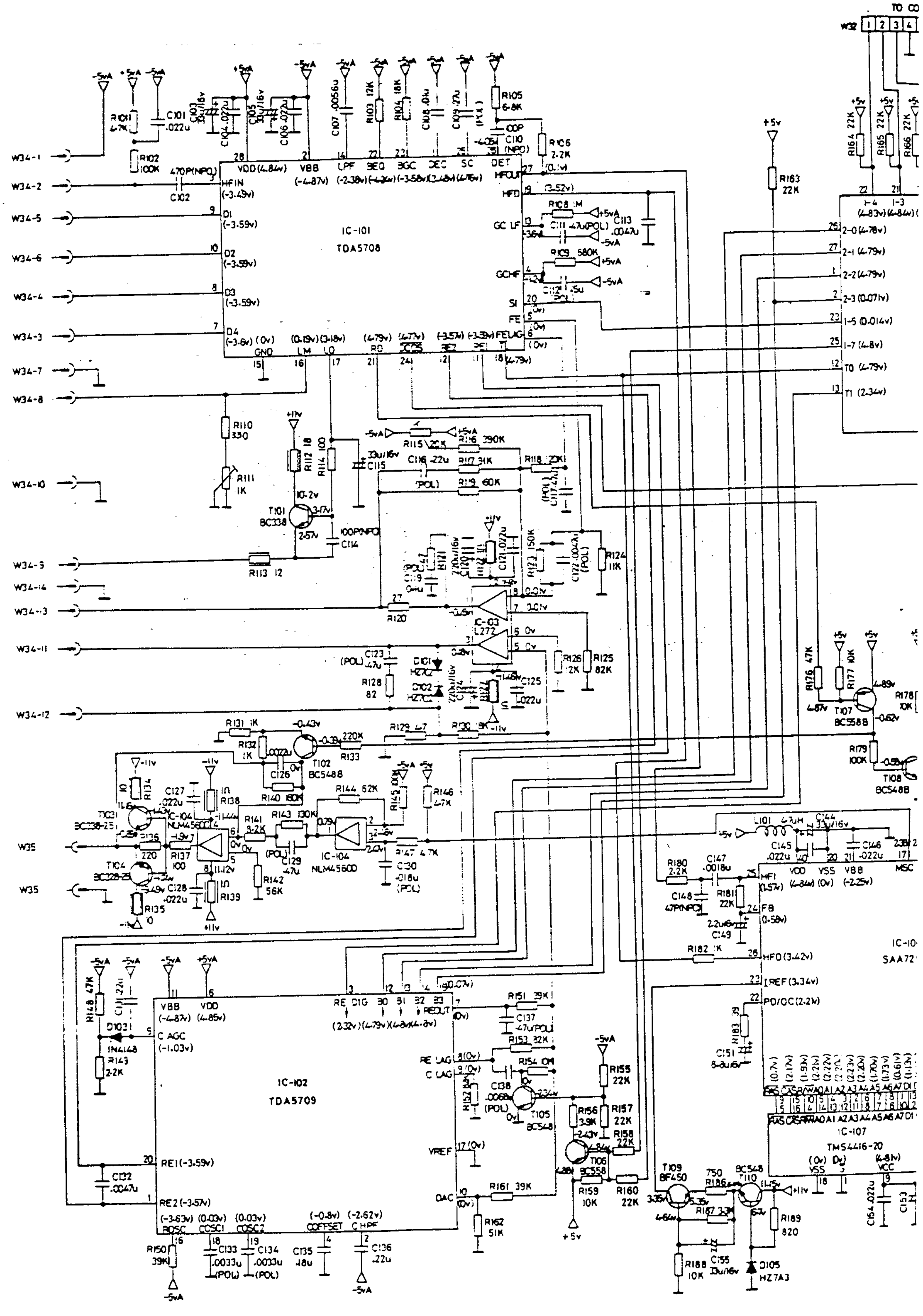
PIN NO.	SYMBOL	DESCRIPTION
1	DEC	Decoupling bias current HF part.
2	V_{SS}	Negative supply connection (also substrate connection).
3	HF_{IN}	HF current input.
4	GCHF	Gain control input of HF amplifier. Current output from HF amplitude detector.
5	FE	Current output of normalized, switched focus error signal.
6	FE_{LAG}	Current output of switched focus error signal, intended for lag network.
7, 8	D4, D3	LF photo diode current input.
9, 10	D1, D2	LF photo diode current input.
11	RE_1	Summation of amplified currents D1 and D2.
12	RE_2	Summation of amplified currents D3 and D4.
13	GCLF	Gain control input of LF amplifiers. Current output from LF amplitude detector.
14	LPF	Low-pass filter for I_{RET}, used in track loss (TL) detector and LF control part ($I_{RET} = I_{RE1} + I_{RE2}$).
15	GND	Laser supply ground. Logic ground.
16	LM	Laser monitor diode input.
17	LO	Laser amplifier current output.
18	$\overline{TL}$	Track loss.
19	HFD	High frequency detector output.
20	SI	On/off control, laser supply ... and focus circuitry.
21	RD	Ready signal output; starting up procedure finished.
22	BEQ	Bias current input for equalizer and HF input parts.
23	BGC	Bias current input for HF output part and LF gain control, TL and FE circuitry.
24	$\overline{DODS}$	Drop out detector suppression.
25	SC	Starting up input.
26	DET	HF detector voltage input.
27	HF_{OUT}	HF amplifier and equalizer voltage output.
28	V_{DD}	Positive supply voltage.


DEC 1
VSS 2
HFIN 3
GCHF 4
FE 5
FELAG 6
D4 7
D3 8
D1 9
D2 10
RE1 11
RE2 12
GCLF 13
LPF 14
28 VDD
27 HFOUT
26 DET
25 SC
24 DODS
23 BGC
22 BEQ
21 RD
20 SI
19 HFD
18 TL
17 LO
16 LM
15 GND
TDA5708

TOP VIEW

(DECODE

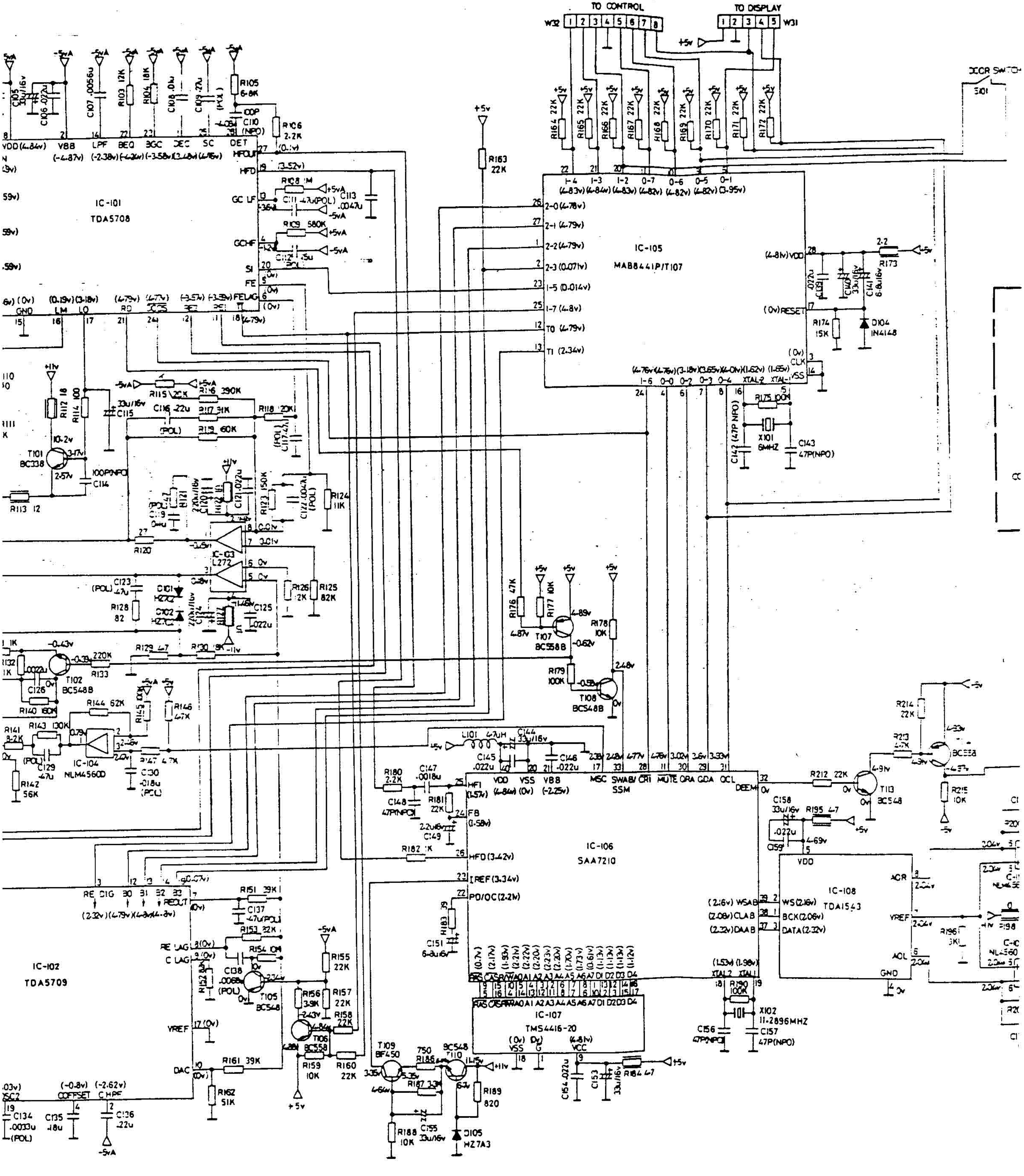
MOD



IC-101
TDA5708
IC-102
TDA5709
IC-103
L272
IC-104
NLM4560D
IC-107
TMS4416-20
SAA72
W34-1
W34-2
W34-5
W34-6
W34-4
W34-3
W34-7
W34-8
W34-10
W34-9
W34-14
W34-13
W34-11
W34-12
W35
W32
TO CO
HFIN (-3.43v)
VDD (4.84v)
VBB (-4.87v)
LPF (-2.38v)
BEQ
BGC
DEC
SC
DET
HFOUT
HFD (2.52v)
GC LF
GCHF
SI
FE
FELAG
GND
LM
LO
RD
T1
D1 (-3.59v)
D2 (-3.59v)
D3 (-3.59v)
D4 (-3.6v)
T101 BC338
T102 BC548B
T103 BC338-25
T104 BC328-25
T105 BC548
T106 BC558
T107 BC558B
T108 BC548B
T109 BF450
T110 BC548
D101 HZ7C
D102 HZ7C
D103 1N4148
D105 HZ7A3
L101 47uH
C AGC (-1.03v)
RE1 (-3.59v)
RE2 (-3.57v)
ROSC
COSC1
COSC2
COFFSET
C HPF
RE DIG
RE LAG
C LAG
VREF
DAC
REOUT
HFI
FB
HFD (3.42v)
IREF (3.34v)
PD/OC (2.2v)
VSS
VCC
MSC
RAS CAS R/W A0 A1 A2 A3 A4 A5 A6 A7 DI
+5vA
-5vA
+11v
-11v
+5v

(DECODER / DISPLAY SECTION)

MODEL: DK-200

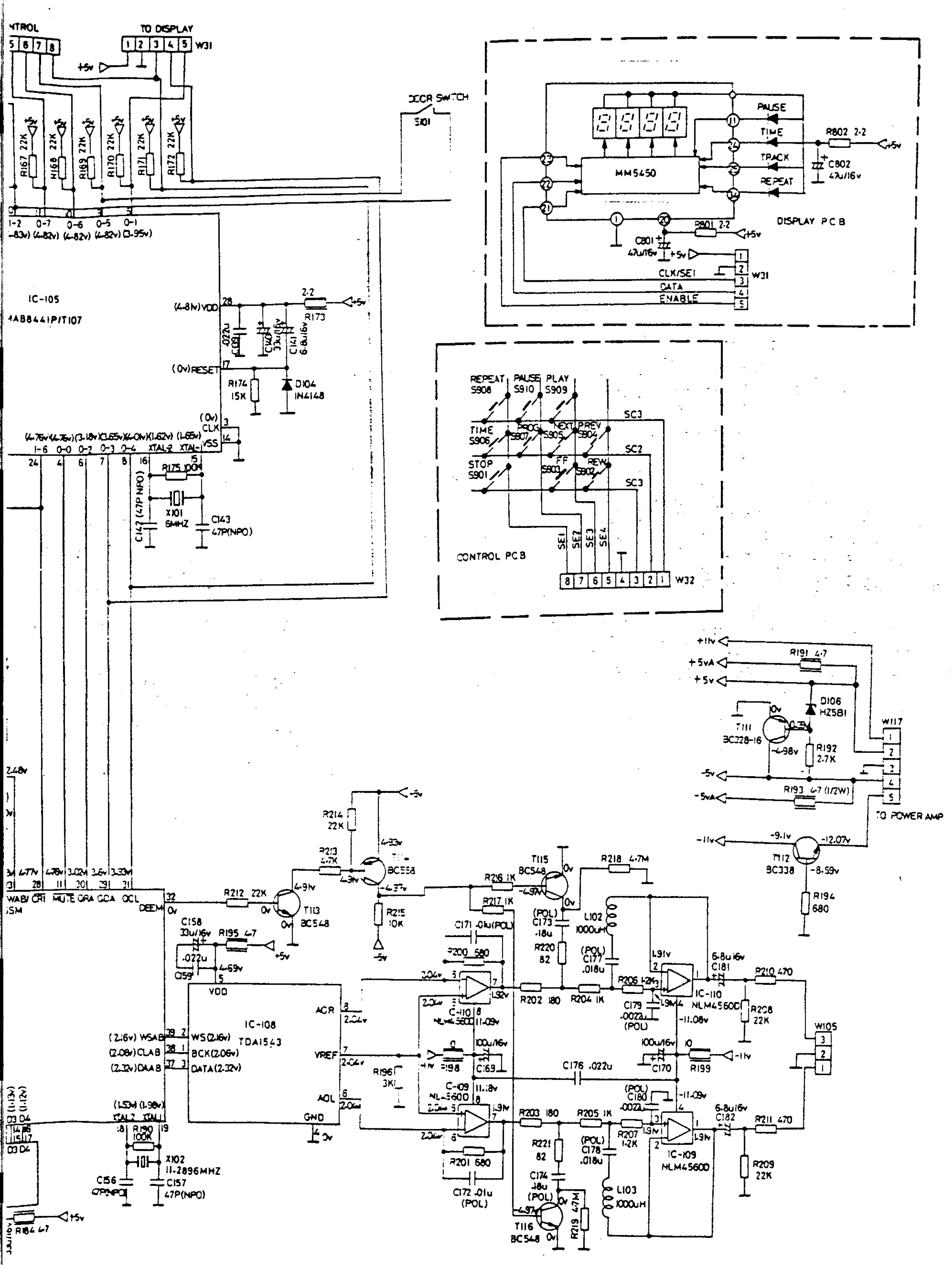


TO CONTROL
TO DISPLAY
W32
W31
+5v
IC-101
TDA5708
IC-102
TDA5709
IC-103
L272
IC-104
NLM4560D
IC-105
MAB8441P/T107
IC-106
SAA7210
IC-107
TMS4416-20
IC-108
TDA1543
T101
BC338
T102
BC548B
T105
BC548
T106
BC558
T107
BC558B
T108
BC548B
T109
BF450
T110
BC548
T113
BC548
D101
D102
D104
1N4148
D105
HZ7A3
X101
6MHZ
X102
11.2896MHZ
L101
47uH
S101
VDD
VSS
VBB
LPF
BEQ
BGC
DEC
SC
DET
HFOUT
HFD
GC LF
GCHF
SI
FE
FELAG
GND
LM
LO
RD
TI
RESET
CLK
XTAL-2
XTAL-1
HF1
FB
IREF
PD/OC
MSC
SWAB/CRI
SSM
MUTE
CRA
CDA
CCL
DEEM
WSAB
CLAB
DAAB
WS
BCK
DATA
AOR
VREF
AOL
RE
DIG
RE LAG
C LAG
DAC
COFFSET
CHPF
RAS CAS W A0 A1 A2 A3 A4 A5 A6 A7 D1 D2 D3 D4
R105 6.8K
R106 2.2K
R108 1M
R109 580K
R163 22K
R164 22K
R165 22K
R166 22K
R167 22K
R168 22K
R169 22K
R170 22K
R171 22K
R172 22K
R173
R174 15K
R175 100K
R176 47K
R177 10K
R178 10K
R179 100K
R180 2.2K
R181 22K
R182 1K
R183 39
R187 33K
R188 10K
R189 820
R190 100K
R195 4.7
R212 22K
R214 22K
R215 10K
R151 39K
R153 22K
R155 22K
R156 3.9K
R157 22K
R158 22K
R159 10K
R160 22K
R161 39K
R162 51K
C142 47P NPO
C143 47P(NPO)
C156 47P(NPO)
C157 47P(NPO)
C158 33u/16v
2.2

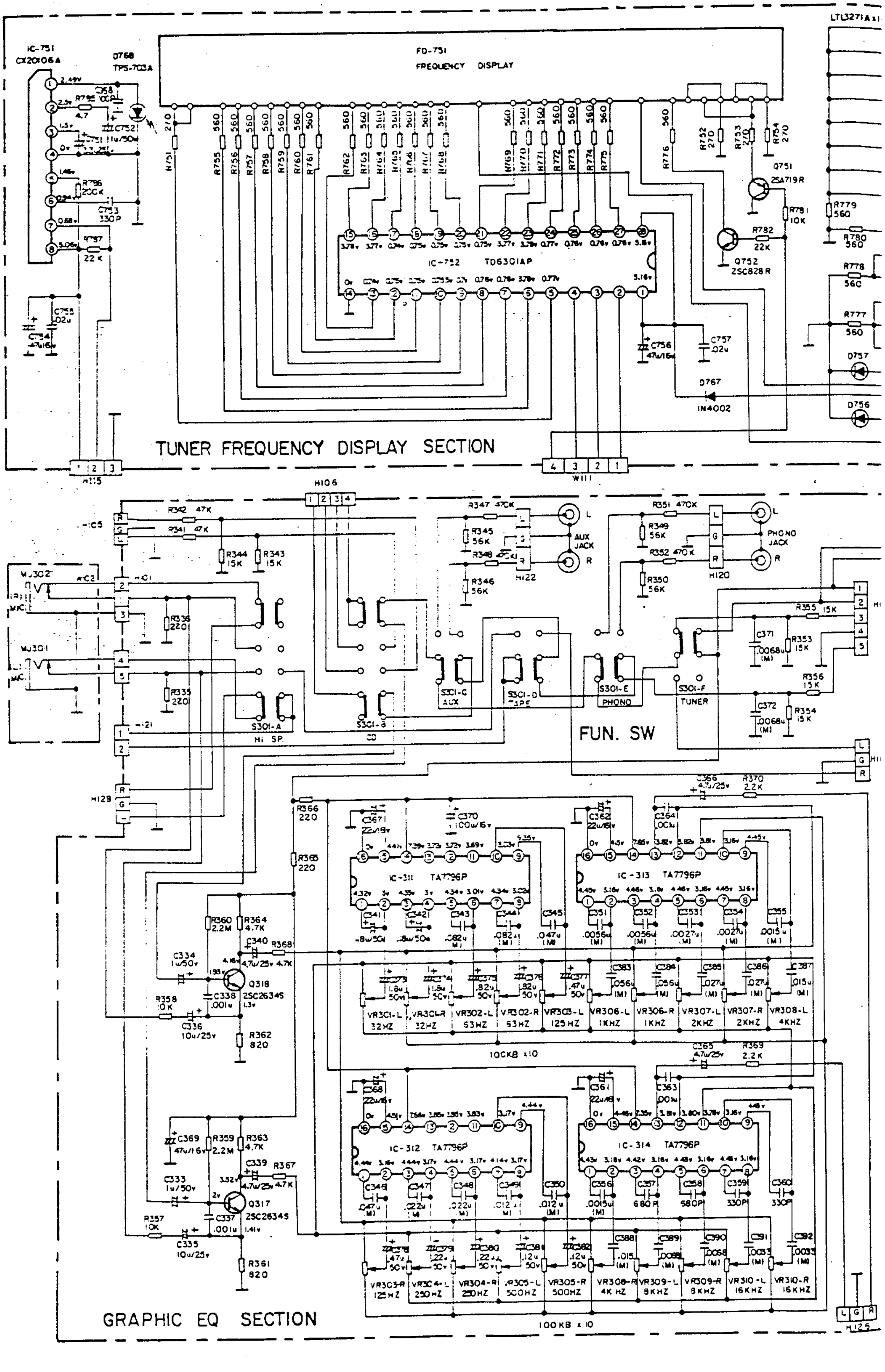
22

R / DISPLAY SECTION)

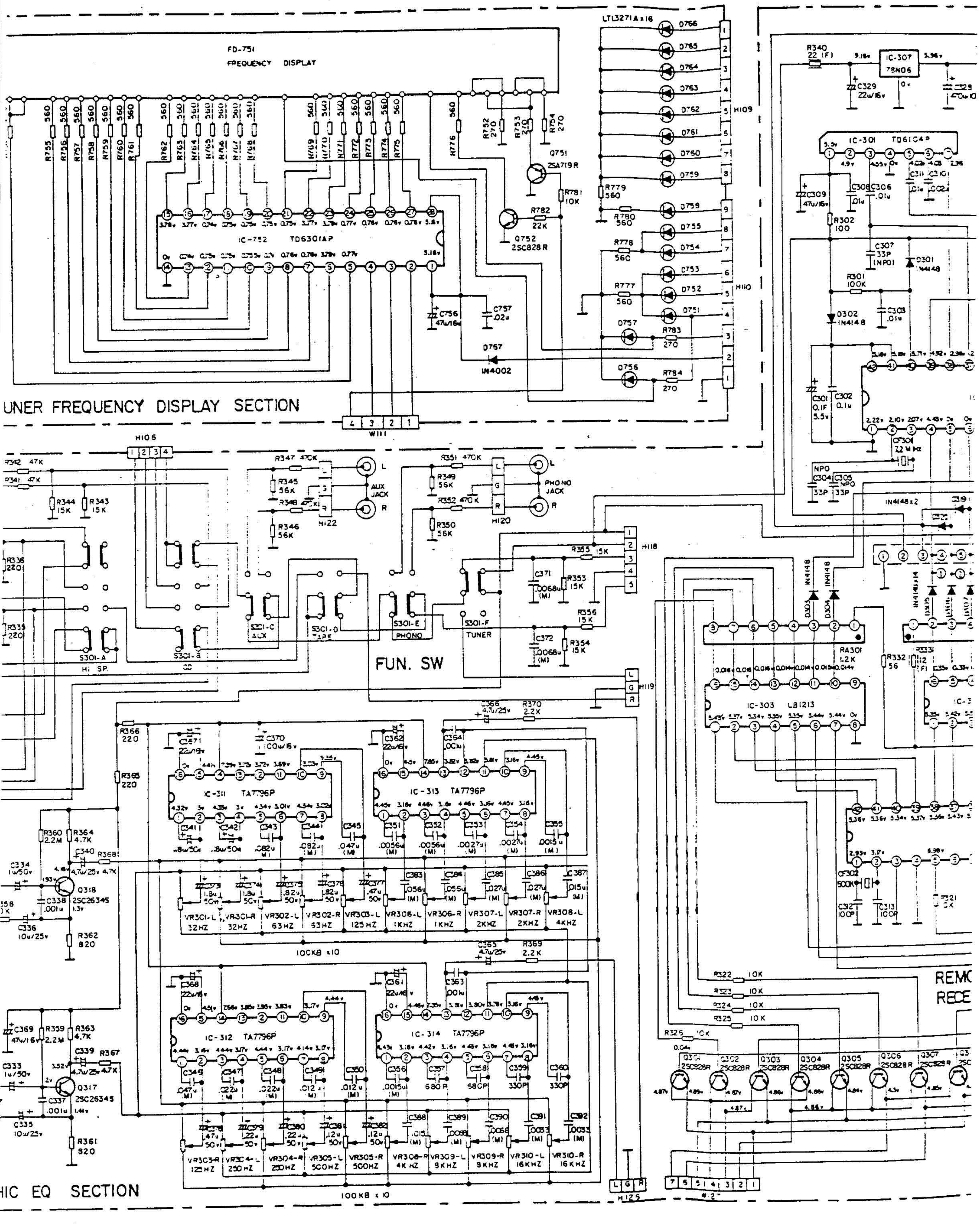
EL: DK-200


NTROL
TO DISPLAY
W31
+5v
DOOR SWITCH
S101
R167 22K
R168 22K
R169 22K
R170 22K
R171 22K
R172 22K
IC-105
AB8441P/T107
(4.8v) VDD
(0v) RESET
CLK
VSS
R173 2.2
C139 .022u
C140
C141 6.8u/16v
R174 15K
D104 1N4148
R175 100K
X101 6MHZ
C142 47P(NPO)
C143 47P(NPO)
MM5450
PAUSE
TIME
TRACK
REPEAT
R802 2.2
C802 47u/16v
R801 2.2
C801 47u/16v
CLK/SE1
DATA
ENABLE
DISPLAY PCB
REPEAT S908
PAUSE S910
PLAY S909
TIME S906
PROG S907
NEXT S905
PREV S904
STOP S901
FF S903
REW S902
SC3
SC2
SE1
SE2
SE3
SE4
CONTROL PCB
W32
+11v
+5vA
+5v
R191 4.7
D106 HZ5B1
T111 BC328-16
R192 2.7K
-5v
-5vA
R193 4.7 (1/2W)
W117
TO POWER AMP
-11v
T112 BC338
R194 680
R214 22K
R213 4.7K
T114 BC558
R215 10K
R212 22K
T113 BC548
DEEM
C158 33u/16v
R195 4.7
C159 .022u
IC-108
TDA1543
VDD
WS(2.16v)
BCK(2.06v)
DATA(2.32v)
AOR
VREF
AOL
GND
(2.16v) WSAB
(2.08v) CLAB
(2.32v) DAAB
XTAL2
XTAL1
R190 100K
X102 11.2896MHZ
C156 47P(NPO)
C157 47P(NPO)
R184 4.7
T115 BC548
R216 1K
R217 1K
R218 4.7M
C173 .18u (POL)
R220 82
L102 1000uH
C177 .018u (POL)
C171 .01u (POL)
R200 680
IC-110 NLM4560D
R202 180
R204 1K
R206 1.2K
C179 .0022u (POL)
C181 6.8u/16v
R210 470
R208 22K
W105
R196 3K
C198
C169 100u/16v
C176 .022u
C170 100u/16v
R199 10
IC-109 NLM4560D
R203 180
R205 1K
R207 1.2K
C180 .0022u (POL)
C182 6.8u/16v
R211 470
R209 22K
R221 82
C178 .018u (POL)
L103 1000uH
R201 680
C172 .01u (POL)
C174 .18u (POL)
T116 BC548
R219 4.7M

SCHEMAT
(GR. EQ/FRE
MODE


LTL3271A
IC-751
CX20106A
D768
TPS-703A
FD-751
FREQUENCY DISPLAY
IC-752 TD6301AP
Q751
2SA719R
Q752
2SC828R
D767
1N4002
D757
D756
TUNER FREQUENCY DISPLAY SECTION
H115
W111
H106
AUX JACK
PHONO JACK
H122
H120
MJ302
MJ301
MIC.
S301-A
HI SP.
S301-B
CD
S301-C
AUX
S301-D
TAPE
S301-E
PHONO
S301-F
TUNER
FUN. SW
H129
IC-311 TA7796P
IC-313 TA7796P
IC-312 TA7796P
IC-314 TA7796P
Q318
2SC2634S
Q317
2SC2634S
VR301-L 32HZ
VR301-R 32HZ
VR302-L 63HZ
VR302-R 63HZ
VR303-L 125HZ
VR306-L 1KHZ
VR306-R 1KHZ
VR307-L 2KHZ
VR307-R 2KHZ
VR308-L 4KHZ
100KB x10
VR303-R 125HZ
VR304-L 250HZ
VR304-R 250HZ
VR305-L 500HZ
VR305-R 500HZ
VR308-R 4K HZ
VR309-L 8KHZ
VR309-R 8KHZ
VR310-L 16KHZ
VR310-R 16KHZ
100KB x10
GRAPHIC EQ SECTION
H125

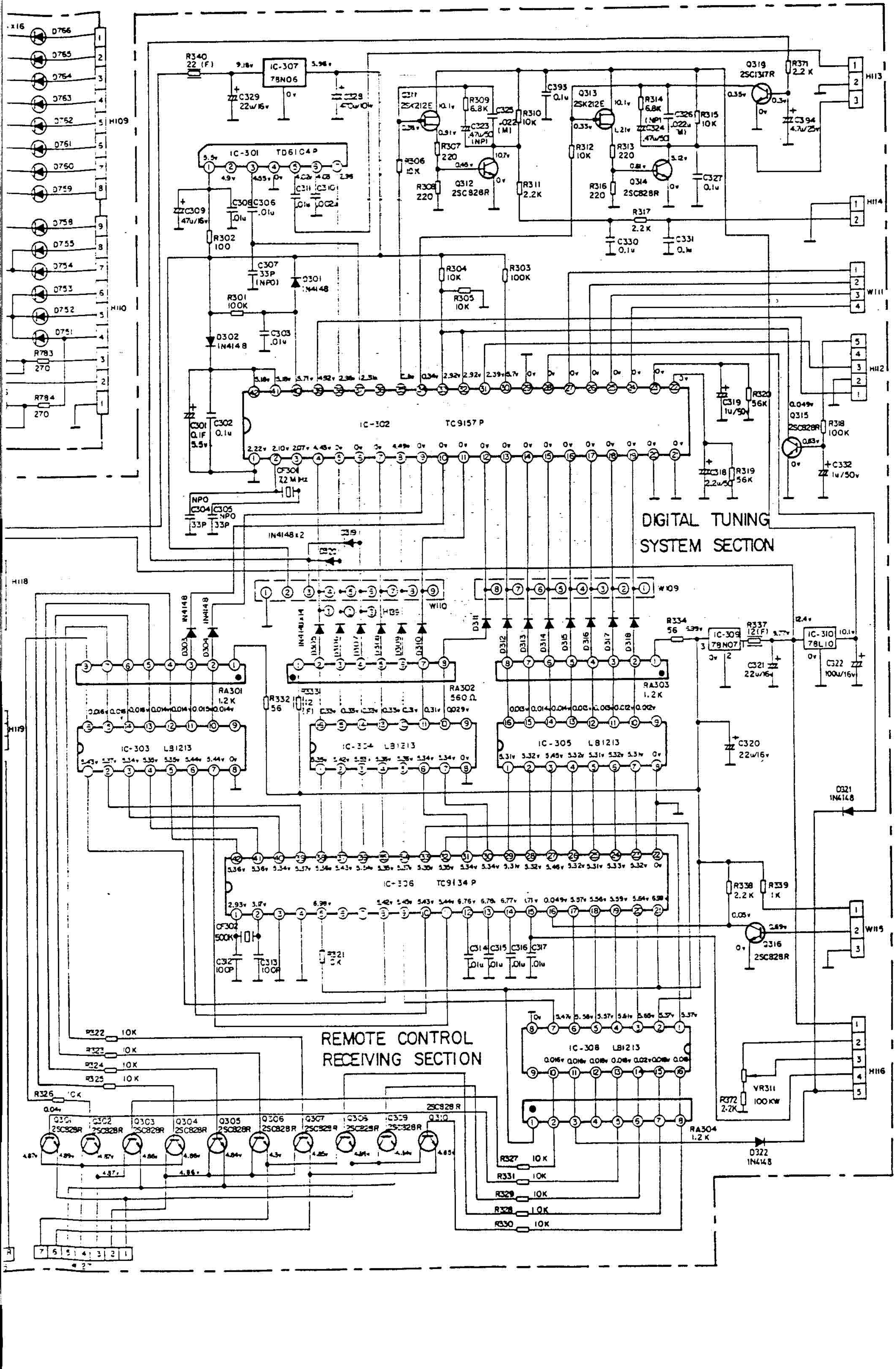
SCHEMATIC DIAGRAM
(GR. EQ/FREQ.DISPLAY/FUN.SW)
MODEL:DK-200


FD-751
FREQUENCY DISPLAY
LTL3271A x16
IC-752 TD6301AP
Q751 2SA719R
Q752 2SC828R
R781 10K
R782 22K
C756 47u/16v
C757 .02u
D767 1N4002
H109
H110
D766
D765
D764
D763
D762
D761
D760
D759
D758
D755
D754
D753
D752
D751
D757
D756
R779 560
R780 560
R778 560
R777 560
R783 270
R784 270
R752 270
R753 270
R754 270
R776 560
UNER FREQUENCY DISPLAY SECTION
W111
H106
R342 47K
R341 47K
R344 15K
R343 15K
R347 470K
R345 56K
R348 470K
R346 56K
AUX JACK
H122
R351 470K
R349 56K
R352 470K
R350 56K
PHONO JACK
H120
H118
R355 15K
R353 15K
R356 15K
R354 15K
C371 .0068u (M)
C372 .0068u (M)
S301-A Hi SP.
S301-B CD
S301-C AUX
S301-D TAPE
S301-E PHONO
S301-F TUNER
FUN. SW
H119
R366 220
R365 220
C371 22u/16v
C370 100u/16v
IC-311 TA7796P
C362 22u/16v
C364 .001u
IC-313 TA7796P
C366 4.7u/25v
R370 2.2K
R360 2.2M
R364 4.7K
C340 4.7u/25v
R368 4.7K
C334 1u/50v
Q318 2SC2634S
C338 .001u
C336 10u/25v
R362 820
C341 .8u/50v
C342 .8u/50v
C343 .082u (M)
C344 .082u (M)
C345 .047u (M)
C351 .0056u (M)
C352 .0056u (M)
C353 .0027u (M)
C354 .0027u (M)
C355 .0015u (M)
C373 1.8u 50v
C374 1.8u 50v
C375 .82u 50v
C376 .82u 50v
C377 .47u 50v
C383 .056u (M)
C384 .056u (M)
C385 .027u (M)
C386 .027u (M)
C387 .015u (M)
VR301-L 32HZ
VR301-R 32HZ
VR302-L 63HZ
VR302-R 63HZ
VR303-L 125HZ
VR306-L 1KHZ
VR306-R 1KHZ
VR307-L 2KHZ
VR307-R 2KHZ
VR308-L 4KHZ
100KB x10
C365 4.7u/25v
R369 2.2K
C368 22u/16v
IC-312 TA7796P
C361 22u/16v
C363 .001u
IC-314 TA7796P
C369 47u/16v
R359 2.2M
R363 4.7K
C339 4.7u/25v
R367 4.7K
C333 1u/50v
Q317 2SC2634S
C337 .001u
C335 10u/25v
R361 820
C346 .047u (M)
C347 .22u (M)
C348 .022u (M)
C349 .012u (M)
C350 .012u (M)
C356 .0015u (M)
C357 680P
C358 680P
C359 330P
C360 330P
C378 .47u 50v
C379 .22u 50v
C380 .22u 50v
C381 .12u 50v
C382 .12u 50v
C388 .015u (M)
C389 .0068 (M)
C390 .0068 (M)
C391 .0033 (M)
C392 .0033 (M)
VR303-R 125HZ
VR304-L 250HZ
VR304-R 250HZ
VR305-L 500HZ
VR305-R 500HZ
VR308-R 4KHZ
VR309-L 8KHZ
VR309-R 8KHZ
VR310-L 16KHZ
VR310-R 16KHZ
HIC EQ SECTION
100KB x10
H125
R340 22 (F)
IC-307 78N06
C329 22u/16v
IC-301 TD6104P
C309 47u/16v
C308 .01u
C306 .01u
C311
C310
R302 100
C307 33P (NPO)
D301 1N4148
R301 100K
D302 1N4148
C303 .01u
C301 0.1F 5.5v
C302 0.1u
CF301 7.2 MHz
C304 33P NPO
C305 33P NPO
1N4148 x2
D303 1N4148
D304 1N4148
RA301 1.2K
R332 56
IC-303 LB1213
CF302 500K
C312 10CP
C313 10CP
R321 1K
R322 10K
R323 10K
R324 10K
R325 10K
R326 10K
Q301 2SC828R
Q302 2SC828R
Q303 2SC828R
Q304 2SC828R
Q305 2SC828R
Q306 2SC828R
Q307 2SC828R
REMO
RECE

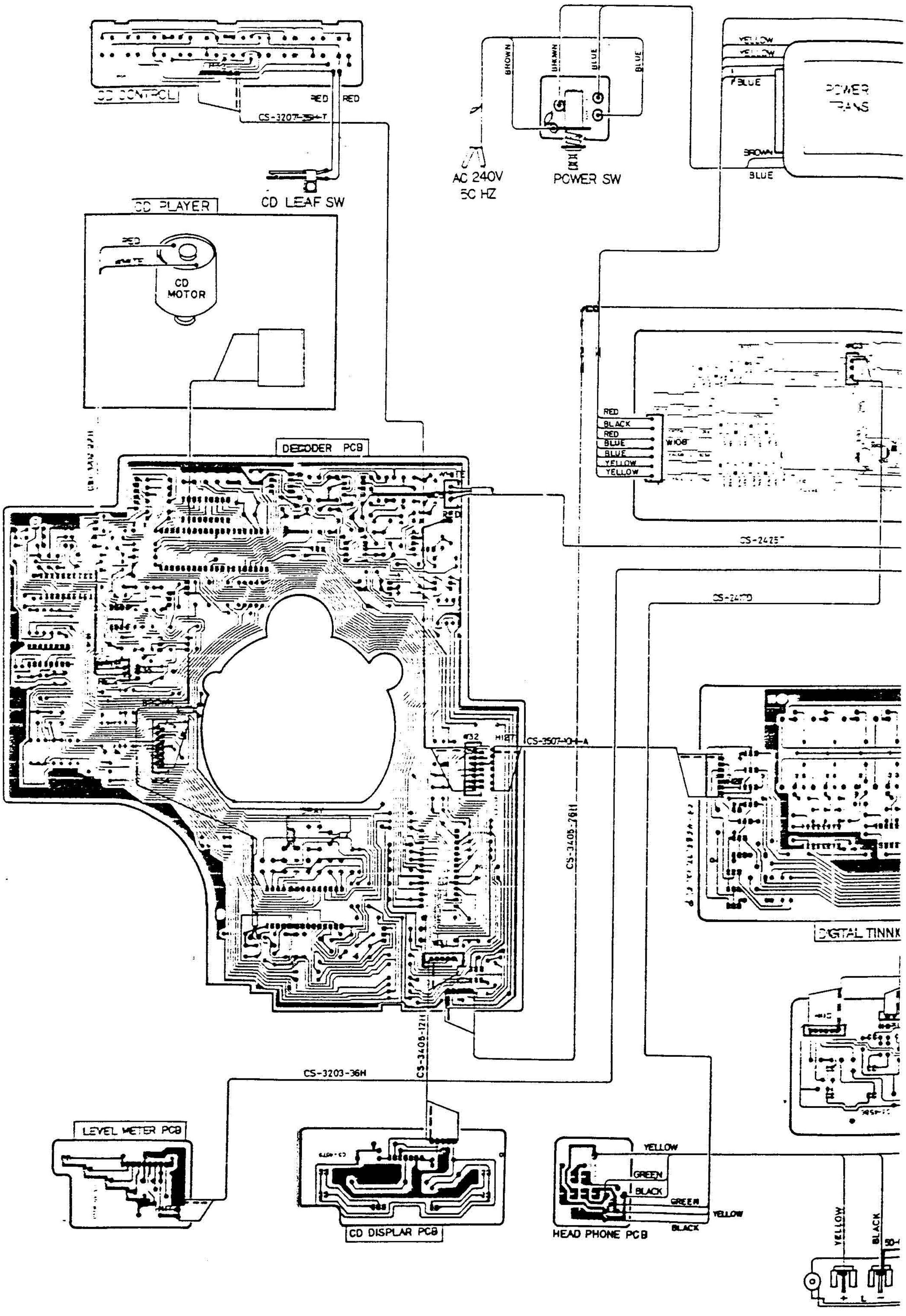
IC DIAGRAM

EQ.DISPLAY/FUN.SW)

EL:DK-200

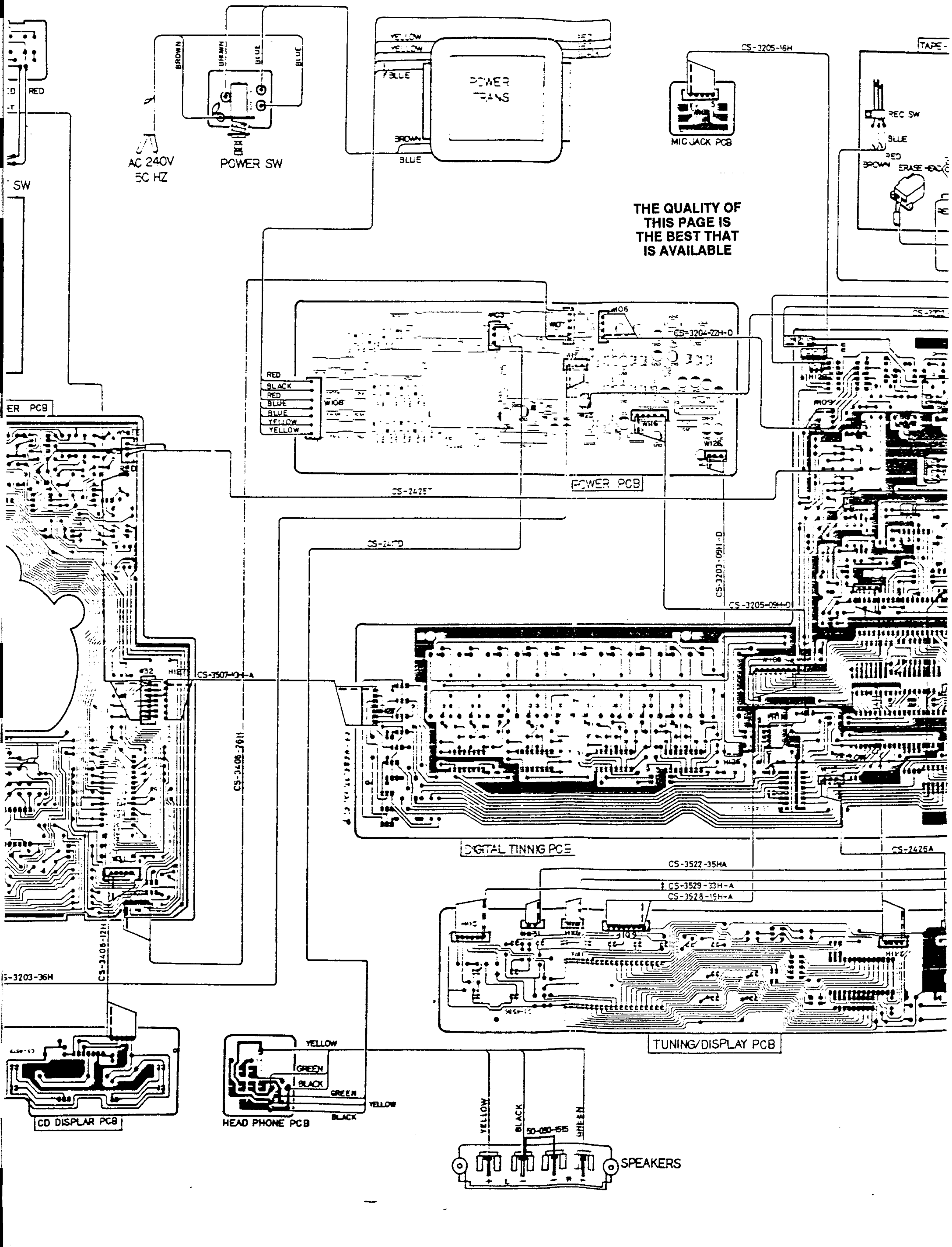

DIGITAL TUNING SYSTEM SECTION
REMOTE CONTROL RECEIVING SECTION
IC-301 TD6104P
IC-302 TC9157P
IC-303 LB1213
IC-304 LB1213
IC-305 LB1213
IC-306 TC9134P
IC-307 78N06
IC-308 LB1213
IC-309 78N07
IC-310 78L10
Q311 2SK212E
Q312 2SC828R
Q313 2SK212E
Q314 2SC828R
Q315 2SC828R
Q316 2SC828R
Q319 2SC1317R
Q301 2SC828R
Q302 2SC828R
Q303 2SC828R
Q304 2SC828R
Q305 2SC828R
Q306 2SC828R
Q307 2SC828R
Q308 2SC828R
Q309 2SC828R
Q310 2SC828R
D301 1N4148
D302 1N4148
D303 1N4148
D304 1N4148
D321 1N4148
D322 1N4148
D751
D752
D753
D754
D755
D758
D759
D760
D761
D762
D763
D764
D765
D766
CF301 7.2 MHz
CF302 500K
RA301 1.2K
RA302 560 Ω
RA303 1.2K
RA304 1.2K
R340 22 (F)
R301 100K
R302 100
R303 100K
R304 10K
R305 10K
R306 10K
R307 220
R308 220
R309 6.8K
R310 10K
R311 2.2K
R312 10K
R313 220
R314 6.8K
R315 10K
R316 220
R317 2.2K
R318 100K
R319 56K
R320 56K
R321 1K
R322 10K
R323 10K
R324 10K
R325 10K
R326 10K
R327 10K
R328 10K
R329 10K
R330 10K
R331 10K
R332 56
R334 56
R337 12 (F)
R338 2.2K
R339 1K
R371 2.2K
R372 2.2K
R783 270
R784 270
VR311 100KW
C301 0.1F 5.5v
C302 0.1u
C303 .01u
C304 33P NPO
C305 33P NPO
C306 .01u
C307 33P (NPO)
C308 .01u
C309 47u/16v
C311 .01u
C312 100P
C313 100P
C314 .01u
C315 .01u
C316 .01u
C317 .01u
C318 2.2u/50
C319 1u/50
C320 22u/16v
C321 22u/16v
C322 100u/16v
C323 47u/50 (NP)
C324 47u/50
C325 .022 (M)
C326 .022u (M)
C327 0.1u
C329 22u/16v
C330 0.1u
C331 0.1u
C332 1u/50v
C393 0.1u
C394 4.7u/25v
H109
H110
H112
H113
H114
H116
H118
H119
W109
W110
W111
W115
IN4148x2
1N4148x14

WIRING
MODE


CD CONTROL
RED
RED
CS-3207-35H-T
CD LEAF SW
CD PLAYER
RED
WHITE
CD MOTOR
BROWN
BROWN
BLUE
BLUE
AC 240V
50 HZ
POWER SW
YELLOW
YELLOW
BLUE
POWER
TRANS
BROWN
BLUE
RED
BLACK
RED
BLUE
BLUE
BLUE
YELLOW
YELLOW
W108
CS-2425
CS-2470
DECODER PCB
WHITE
RED
CS-3507-104-A
CS-3405-26H
DIGITAL TINNK
CS-3203-36H
CS-3405-12H
LEVEL METER PCB
CD DISPLAR PCB
YELLOW
GREEN
BLACK
GREEN
YELLOW
BLACK
HEAD PHONE PCB
YELLOW
BLACK

WIRING DIAGRAM

MODEL: DK-200



AC 240V
50 HZ
POWER SW
BROWN
BROWN
BLUE
BLUE
YELLOW
YELLOW
BLUE
BROWN
BLUE
POWER TRANS
CS-3205-16H
MIC JACK PCB
TAPE
REC SW
BLUE
RED
BROWN
ERASE HEAD
SW
RED
ER PCB
RED
BLACK
RED
BLUE
BLUE
YELLOW
YELLOW
W108
W106
CS-3204-22H-D
W126
POWER PCB
CS-2425
CS-2470
CS-3203-09H-D
CS-3205-09H-D
CS-3507-10H-A
CS-3406-26H
DIGITAL TINNIG PCB
CS-2425A
CS-3522-35HA
CS-3529-33H-A
CS-3528-19H-A
TUNING/DISPLAY PCB
CS-3203-36H
CS-3406-12H
CD DISPLAR PCB
YELLOW
GREEN
BLACK
GREEN
YELLOW
BLACK
HEAD PHONE PCB
YELLOW
BLACK
GREEN
50-080-1515
SPEAKERS
+ L − − R +

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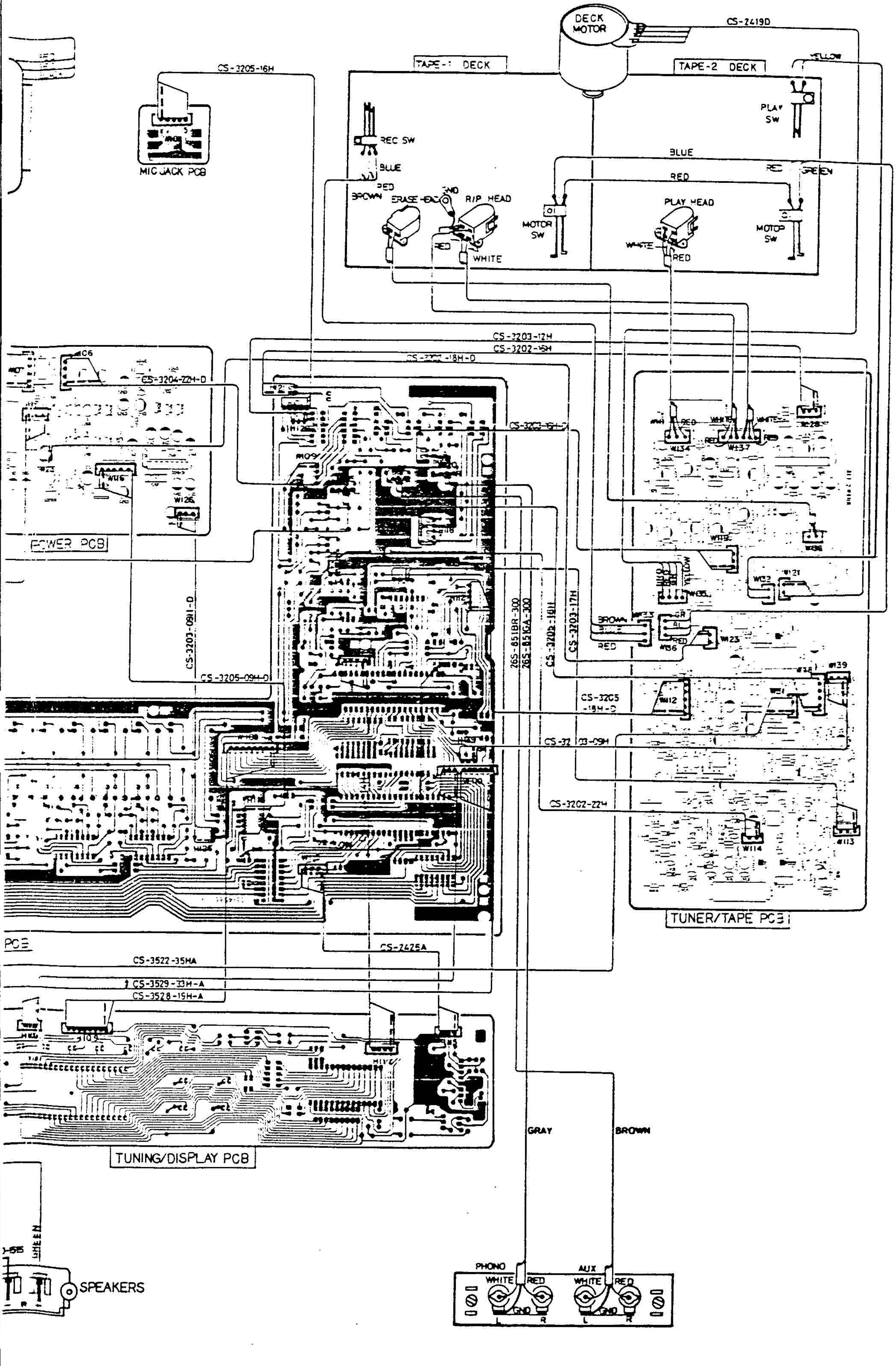
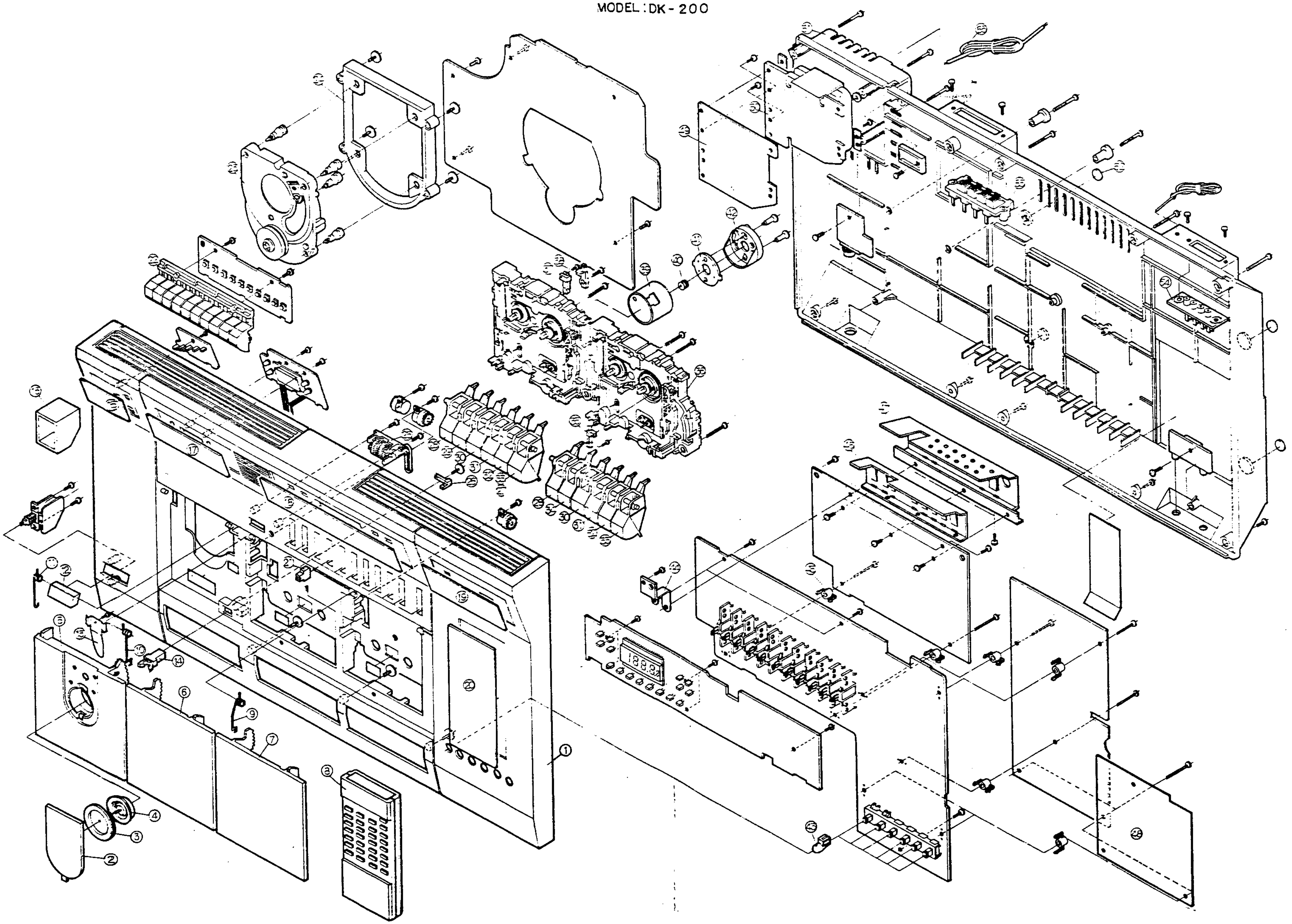
DIAGRAM
DK-200


DECK MOTOR
CS-2419D
TAPE-1 DECK
TAPE-2 DECK
YELLOW
PLAY SW
REC SW
BLUE
RED
BROWN
ERASE HEAD
GND
R/P HEAD
WHITE
MOTOR SW
BLUE
RED
RED
GREEN
PLAY HEAD
WHITE
RED
MOTOR SW
CS-3205-16H
MIC JACK PCB
CS-3203-12H
CS-3202-15H
CS-3202-18H-D
CS-3204-22H-D
W106
W116
W126
POWER PCB
CS-3203-16H-D
W134
W137
W128
W136
CS-3203-09H-D
CS-3205-09H-D
26S-651BR-300
26S-651GA-300
CS-3206-18H
CS-3203-17H
BROWN
RED
W135
W132
W131
W133
W136
W123
W139
W138
W112
CS-3205-18H-D
CS-3203-09H
CS-3202-22H
W114
W113
TUNER/TAPE PCB
PCB
CS-2426A
CS-3522-35HA
CS-3529-33H-A
CS-3528-19H-A
TUNING/DISPLAY PCB
GRAY
BROWN
GREEN
SPEAKERS
PHONO
WHITE
RED
GND
L
R
AUX
WHITE
RED
GND
L
R

EXPLODED VIEW

MODEL : DK - 200



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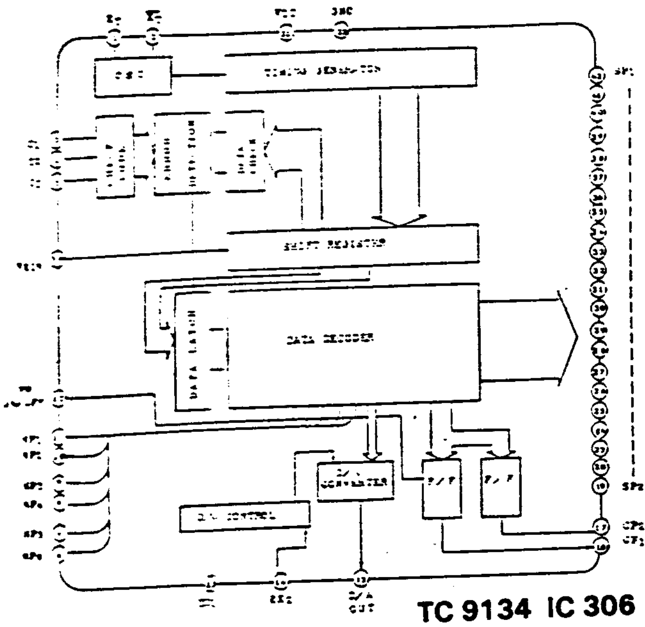
CASSETTE DECK ASS'Y

MODEL: DK-200

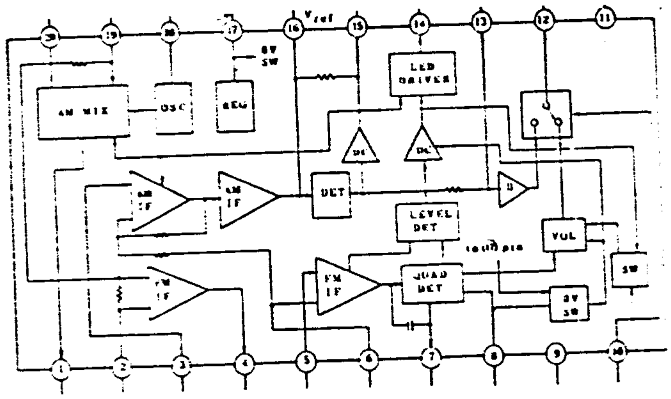
NO.	DESCRIPTION	PART NO.
1.	RX-CHASSIS	3103 304 26510
3.	BUSH LAGERBUCHSE	3103 301 30260
4.	WASHER SCHEIBE (TW	3103 300 40920
5.	FLYWHEEL SCHWUNGSCHEIBE ZUS.	3103 307 64990
6.	SLEEVE LAGERHUELSE	3103 304 03250
9.	RING (TW)	3103 304 03260
10.	WASHER SCHEIBE (TW)	3103 300 40920
18.	GEAR ZAHNRAD (SVL)	3103 304 03320
21.	GEAR ZAHNRAD (VL. ZWISCH.)	3103 304 03310
24.	LEVER HEBEL	3103 304 26610
27.	PLATE UMSPULPLATTE	3103 304 26620
30.	GEAR ZAHNRAD	3103 304 03360
32.	SPRING FEDER	3103 301 03270
33.	GEAR ZAHNRAD	3103 304 03300
37.	LOCK RASTSCHIENE	3103 304 26580
41.	CONTACT SPRING R	3103 301 03240
42.	LEVER HEBEL	3103 304 26600
44.	CONTACT SPRING	3103 301 03230
52.	TAKE UP CLUTCH	3103 307 64980
67.	CARRIER LEFT	3103 304 03350
69.	SPRING FEDER	3103 211 17470
76.	BALL ST BRT	2622 890 00808
77.	HEAD SUPPORT	3103 304 26590
87.	PINCH ROLLER LEVER	3103 304 26730
89.	PINCH ROLLER	3112 358 10280
90.	SPRING FEDER	3103 301 03280
96.	HOLDER-MOTOR	3103 304 03340
97.	DAMPER-MOTOR	3103 304 03330

NO.	DESCRIPTION	PART NO.
99.	DRIVING BELT	3103 304 40900
100.	DRIVING BELT	3103 304 40890
111.	CONTROL DISC	3103 304 03370
117.	SLIPPING SCHLEIFRING	3103 304 03280
118.	SPRING FEDER	3103 301 03310
119.	SPRING FEDER	3103 301 03290
121	SPRING FEDER	3103 301 03300
122.	LEVER HEBEL (EA)	3103 303 26650
136.	LEVER HEBEL (PAUSE	3103 304 26740
138.	KEY TASTE (PAUSE)	3103 304 26520
143.	KEY TASTE (REC)	3103 304 26530
144.	KEY TASTE (SPL)	3103 304 26540
145.	KEY TASTE (SVL)	3103 304 26550
146.	KEY TASTE (PLAY)	3103 304 26560
147.	KEY TASTE (STOP)	3103 304 26570
148.	COMPRESSION SPRING	3103 301 03250
151.	COMPRESSION SPRING	3103 301 03420
152.	LEVER HEBEL I	3103 304 26630
157.	LEVER HEBEL II	3103 304 26640
166.	LEVER CONTINUOUS PLAY	3103 304 26660
K1.	PLAYBACK HEAD (TC-511B	CS-2400
K2.	ERASE HEAD (TC-2131B	CS-2402
K3.	R/P HEAD (TC-521B)	CS-2401
K4.	DUMMY HEAD	CS-2194
M1.	MOTOR MMI-6H1MWA	CS-7229

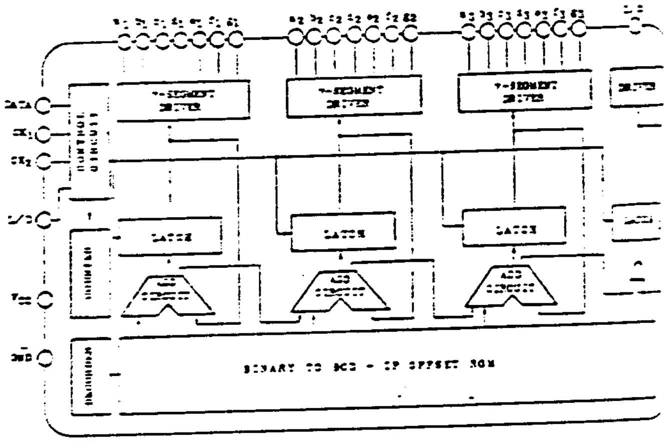
IC BLOCK DIAGRAMS


OSC
TIMING GENERATOR
SHIFT REGISTER
DATA LATCH
DATA DECODER
D/A CONVERTER
F/F
F/F
D/A CONTROL
SP1
SP22
CP2
CP1
VDD
D/A OUT

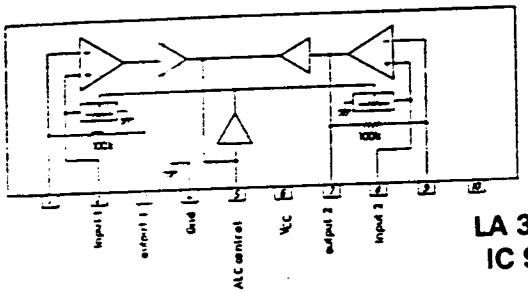
TC 9134 IC 306


Vref
8V SW
AM MIX
OSC
REG
LED DRIVER
AM IF
AM IF
DET
FM IF
FM IF
LEVEL DET
QUAD DET
VOL
SW
3V SW
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

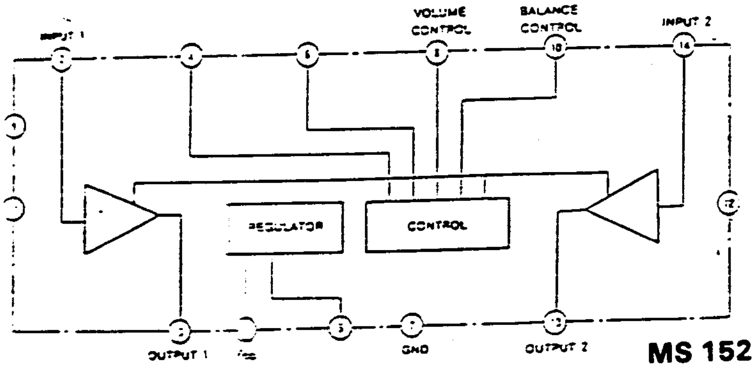
TA 7758 IC 402


DATA
CK1
CK2
VDD
GND
CONTROL CIRCUIT
7-SEGMENT DRIVER
7-SEGMENT DRIVER
7-SEGMENT DRIVER
DRIVER
LATCH
LATCH
LATCH
ADD CIRCUIT
ADD CIRCUIT
ADD CIRCUIT
BINARY TO BCD + IF OFFSET ROM

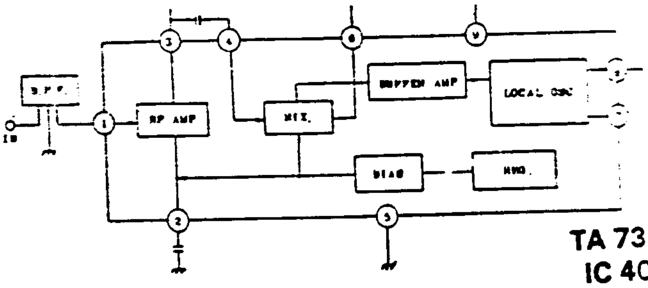
TD 6301 IC 752


100k
100k
Input 1
output 1
Gnd
ALC control
Vcc
output 2
Input 2
1
2
3
4
5
6
7
8
9
10

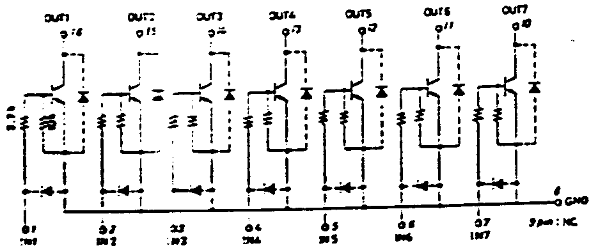
LA 3226
IC 901


INPUT 1
VOLUME CONTROL
BALANCE CONTROL
INPUT 2
REGULATOR
CONTROL
OUTPUT 1
Vcc
GND
OUTPUT 2
1
2
3
4
5
6
7
8
10
12
13
14

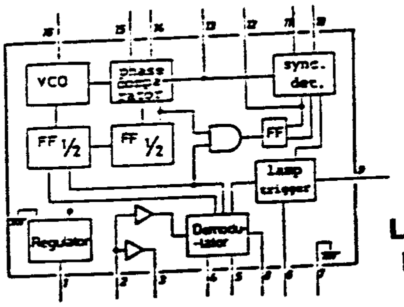
MS 15236
IC 502


B.P.F.
RF AMP
MIX.
BUFFER AMP
LOCAL OSC
BIAS
REG.
1
2
3
4
5
6
9

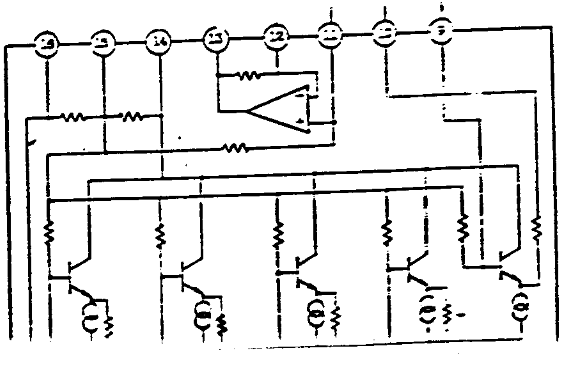
TA 735
IC 40


OUT1
OUT2
OUT3
OUT4
OUT5
OUT6
OUT7
GND
IN1
IN2
IN3
IN4
IN5
IN6
IN7
9pin: NC

LB 1213
IC 303-305
IC 308


VCO
phase comparator
sync. dec.
FF 1/2
FF 1/2
FF
lamp trigger
Regulator
Demodulator
1
2
3
4
5
6
7
8
9
11
12
13
14
15
16

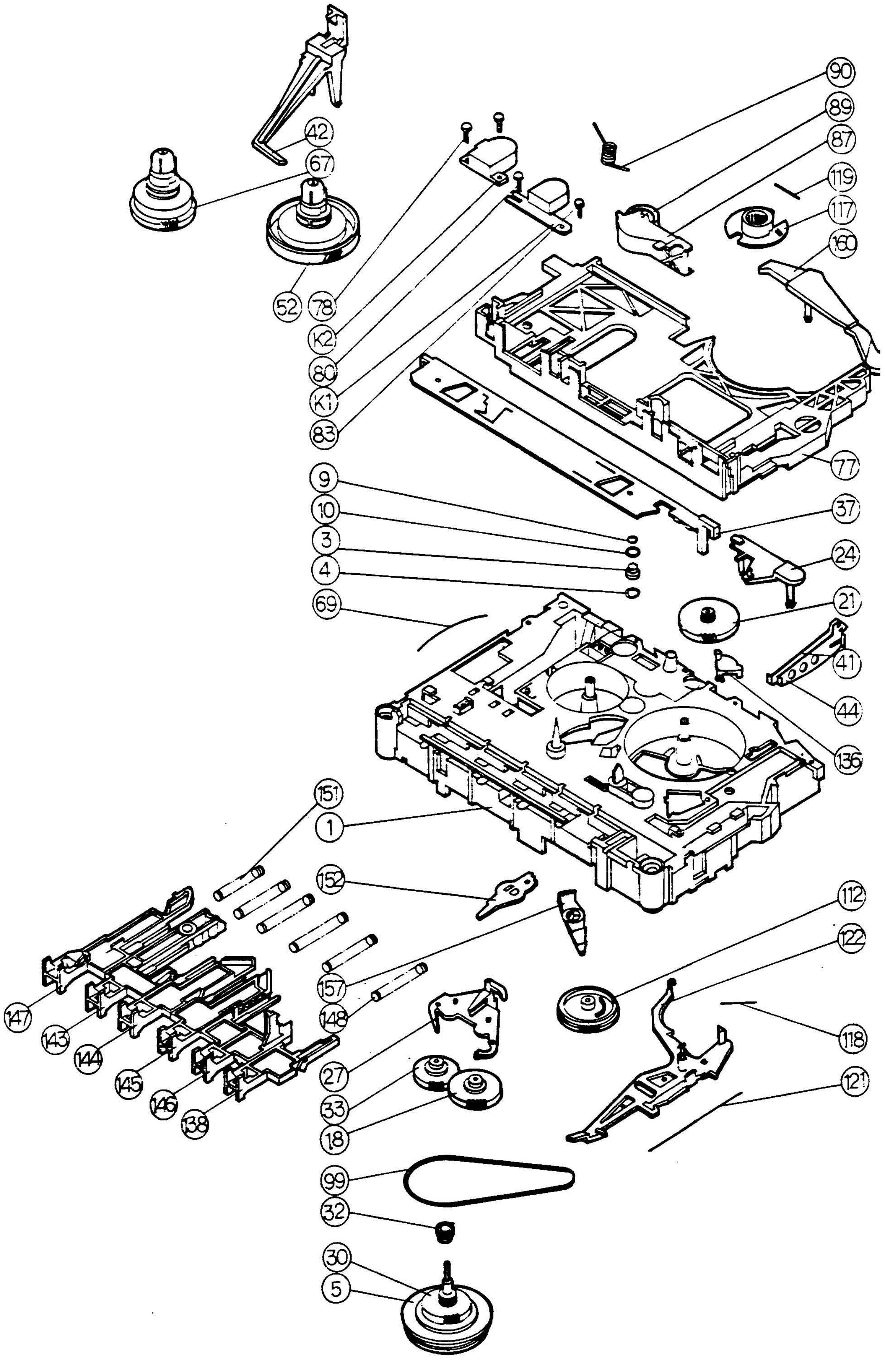
LA 3361
IC 403


9
10
11
12
13
14
15
16

TA 7796
IC 311-314

CASSETTE DECK ASSY

MODEL : DK-200


90
89
87
119
117
160
42
67
52
78
K2
80
K1
83
77
9
10
3
4
69
37
24
21
41
44
136
151
1
152
112
122
157
148
118
147
143
144
145
146
138
27
33
18
121
99
32
30
5

CD ALIGNMENTS

LASER POWER ADJUSTMENT

1) Switch Unit On, Press CD Selector Button
2) Place Laser Power Meter Sensor Over Objective Lens
3) Adjust R111 to Read 0.1MW ± 5% During Focus Search

FOCUS OFFSET ADJUSTMENT

1) Switch Unit On, Press CD Selector Button
2) Put a DC Meter on Centre Wiper of R115 and Adjust for OV ± 50MV

HiNARi

Service Manual

ADDITIONAL SERVICE INFORMATION

DK 200

THIS ADDITIONAL SERVICE INFORMATION IS APPLICABLE TO SERIAL
NUMBERS AFTER 90102201
POWER AMPLIFIER SECTION

ELECTRICAL PARTS LIST

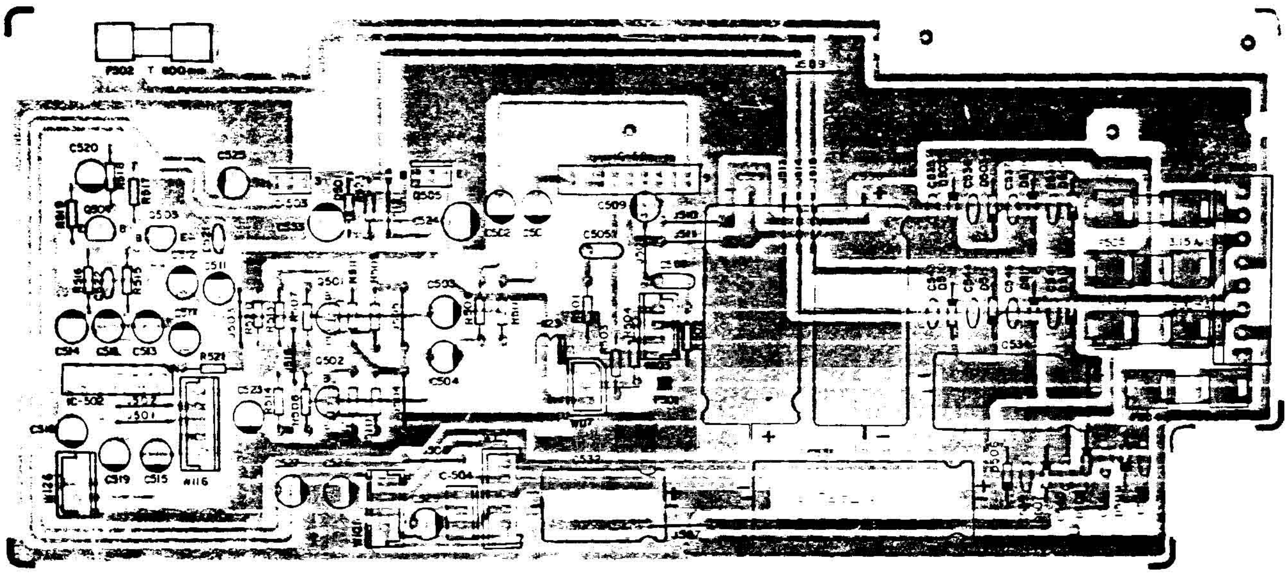
MODEL: DK-200

SYMBOL NO.	PART NO.	DESCRIPTION
	C3-4587-1P	POWER P.C.BOARD ASS'Y COMPLETE
	C3-4587-1	POWER P.C.BOARD
Q-505	CT-1239	TRANSISTOR 2SD1266P
Q-503-504	CT-1063	TRANSISTOR 2SC828R
Q-501-502	CT-1123	TRANSISTOR 2SC2634S
IC-501	CT-4229	IC TDA 1521
IC-502	CT-4230	IC M51523AL
IC-503	CT-4199	IC 7805CT
IC-504	CT-4198	IC 7905CT
D-501	CT-2099T	ZENER DIODE GZA13Z
D-506-507-508-509-510-511-512-513	CT-2048H	RECTIFIER DIODE IN4002
D-502-503-504-505	CT-3025-1	RECTIFIER DIODE IN5392
C-521-522	CC-3036T	CERAMIC CONDENSER 50V 470pf
C-535-536-537-538-539-540-541-542-543	CC-3076T	CERAMIC CONDENSER 50V 0.022uf
C-544-545-546	CC-3076T	CERAMIC CONDENSER 50V 0.022UF
C-505-506	CC-4011T	MYLAR CONDENSER 50V 0.022uf
C-518-520-525-526-527-528	CC-9083T	ELECT. CONDENSER 16V 22uf
C-517-519	CC-9047T	ELECT. CONDENSER 16V 47uf
C-523-524-533	CC-9042T	ELECT. CONDENSER 16V 100uf
C-532	CC-9170	ELECT. CONDENSER 16V 1000uf
C-531	CC-9171	ELECT. CONDENSER 16V 4700uf
C-513-514-515-516	CC-9080T	ELECT. CONDENSER 25V 4.7uf
C-529-520-534	CC-9060	ELECT. CONDENSER 25V 2200uf
C-501-502-503-504	CC-9147T	ELECT. CONDENSER 50V 0.47uf
C-509-511-512	CC-9098T	ELECT. CONDENSER 50V 1uf
R-501-502	CR-2246HT	CARBON FILM RESISTOR 1/4W 8.2 OHM
R-521	CR-2127HT	CARBON FILM RESISTOR 1/4W 220 OHM
R-509-510-520	CR-2119HT	CARBON FILM RESISTOR 1/4W 560K OHM
R-505-506-523	CR-2119HT	CARBON FILM RESISTOR 1/4W 1K OHM
R-515-516	CR-2129HT	CARBON FILM RESISTOR 1/4W 2.2K OHM
R-507-508	CR-2120HT	CARBON FILM RESISTOR 1/4W 4.7K OHM
R-517-518-519	CR-2103HT	CARBON FILM RESISTOR 1/4W 10K OHM
R-511-512	CR-2157HT	CARBON FILM RESISTOR 1/4W 33K OHM
R-513-514	CR-2106HT	CARBON FILM RESISTOR 1/4W 220K OHM
R-503-504	CR-2142HT	CARBON FILM RESISTOR 1/4W 330K OHM
F-502-503-504	CS-9119-1	FUSE 300mA
F-501-505	CS-9113-1	FUSE 3.15A
	CS-1039	FUSE HOLDER
	CS-1007	LUG TERMINAL
	C2-3110	SQUARE WIRE PIN
	C3-7193-1	**POWER TRANSFORMER**

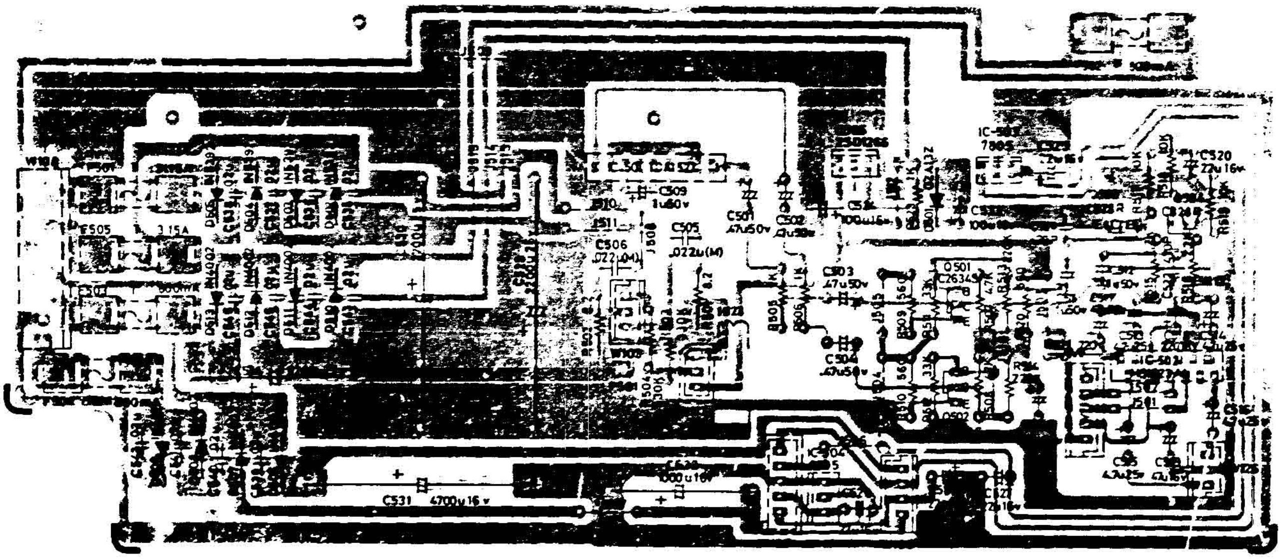
POWER AMP P. C. BOARD ASS'Y

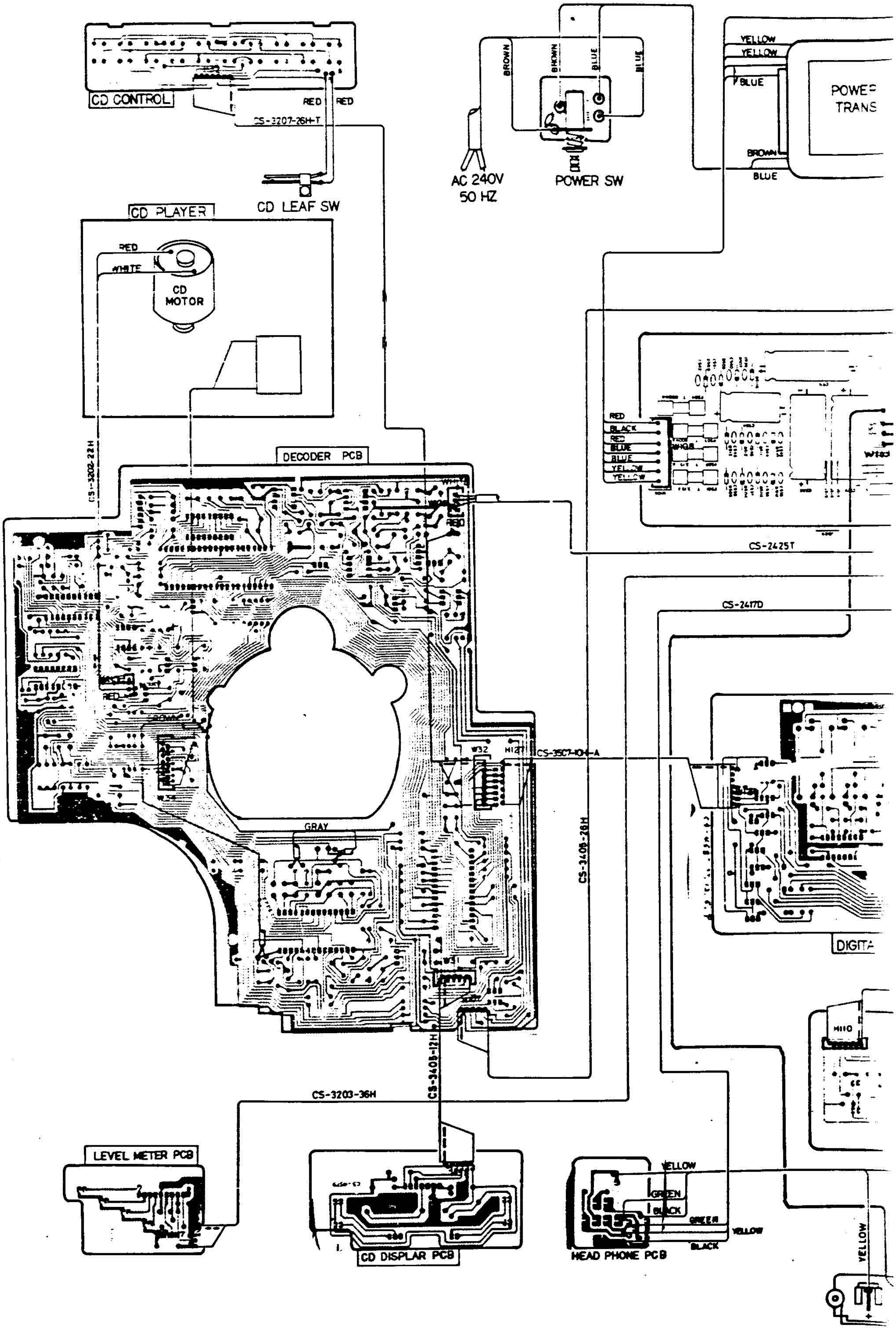
MODEL: DK-200

(TOP VIEW)


F502 T 800mA
C520
C525
C503
Q505
C524
C509
C505
C511
Q501
Q502
C504
C523
C514
C513
C512
R521
IC-502
J502
J501
C518
W116
C519
C515
W126
C-504
F505
3.15A
C533
C534
+
-

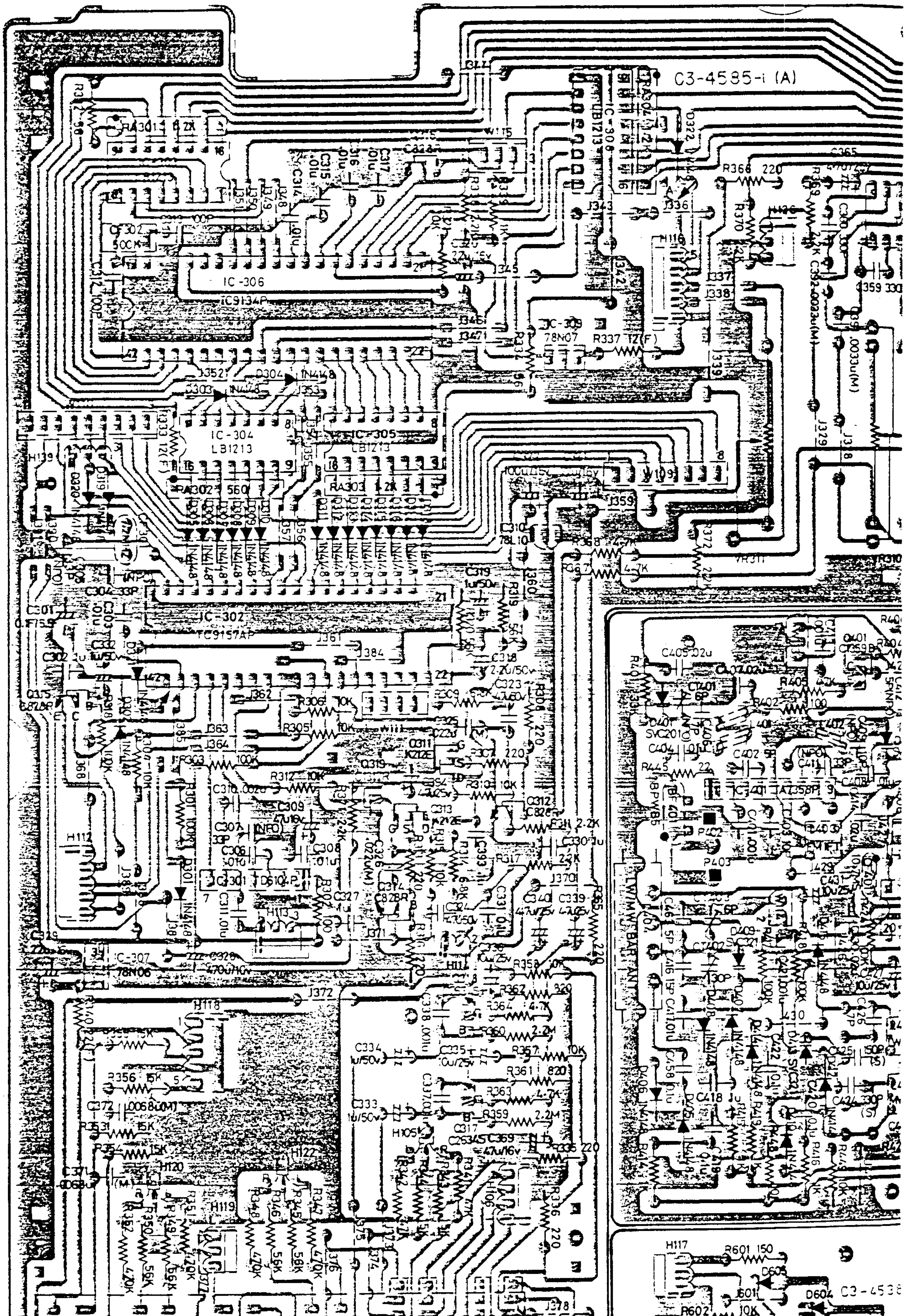
(BOTTOM VIEW)


W126
F501
F505
3.15A
C509
1u50v
C505
.022u(M)
C506
.022u(M)
C501
47u50v
C502
47u50v
C503
47u50v
C504
47u50v
Q501
C2634
Q502
IC-501
7805
C520
22u16v
IC-502
C531
4700u16v
1000u16v
+


CD CONTROL
RED
RED
CS-3207-26H-T
CD LEAF SW
AC 240V
50 HZ
BROWN
BROWN
BLUE
BLUE
POWER SW
YELLOW
YELLOW
BLUE
POWER
TRANS
BROWN
BLUE
CD PLAYER
RED
WHITE
CD
MOTOR
CS-3202-22H
DECODER PCB
RED
BLACK
RED
BLUE
BLUE
YELLOW
YELLOW
CS-2425T
CS-2417D
RED
BROWN
W32
H127
CS-3507-104-A
GRAY
CS-3408-28H
DIGITA
H110
CS-3408-12H
CS-3203-36H
LEVEL METER PCB
CD DISPLAR PCB
YELLOW
GREEN
BLACK
GREEN
YELLOW
BLACK
HEAD PHONE PCB
YELLOW

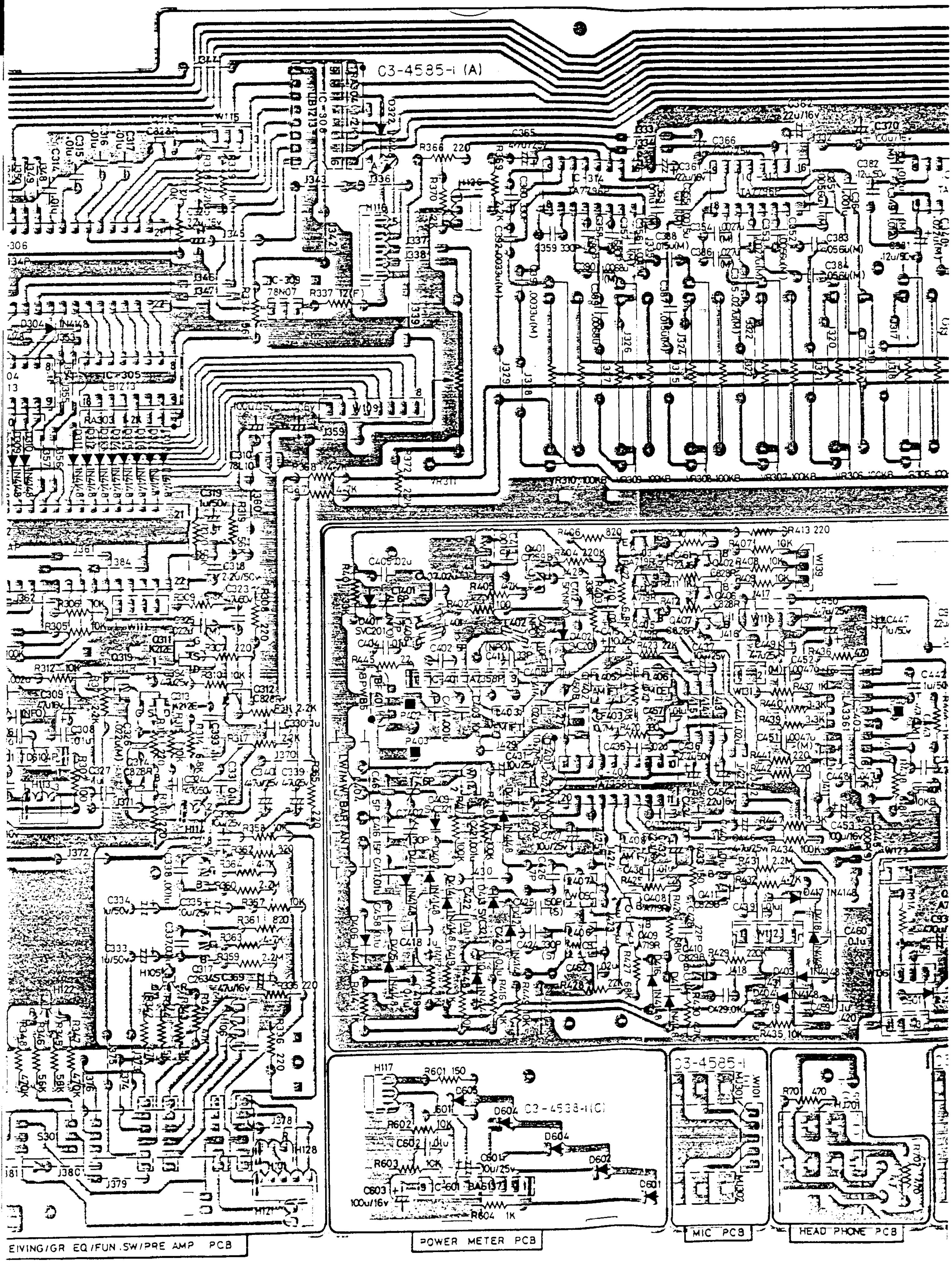
MOD

(BO


C3-4585-i (A)
IC-306
TC9134P
IC-304
LB1213
IC-305
LB1213
IC-302
TC9157AP
IC-308
78N07
IC-307
78N06
IC-301
IC-401
IC-601
C3-4538
S301
H112
H118
H119
H120
H122
H117
VR311
DTS/REMOTE RECEIVING/GR EQ/FUN.SW/PRE AMP PCB
POWER METER PCB

MODEL: DK-200

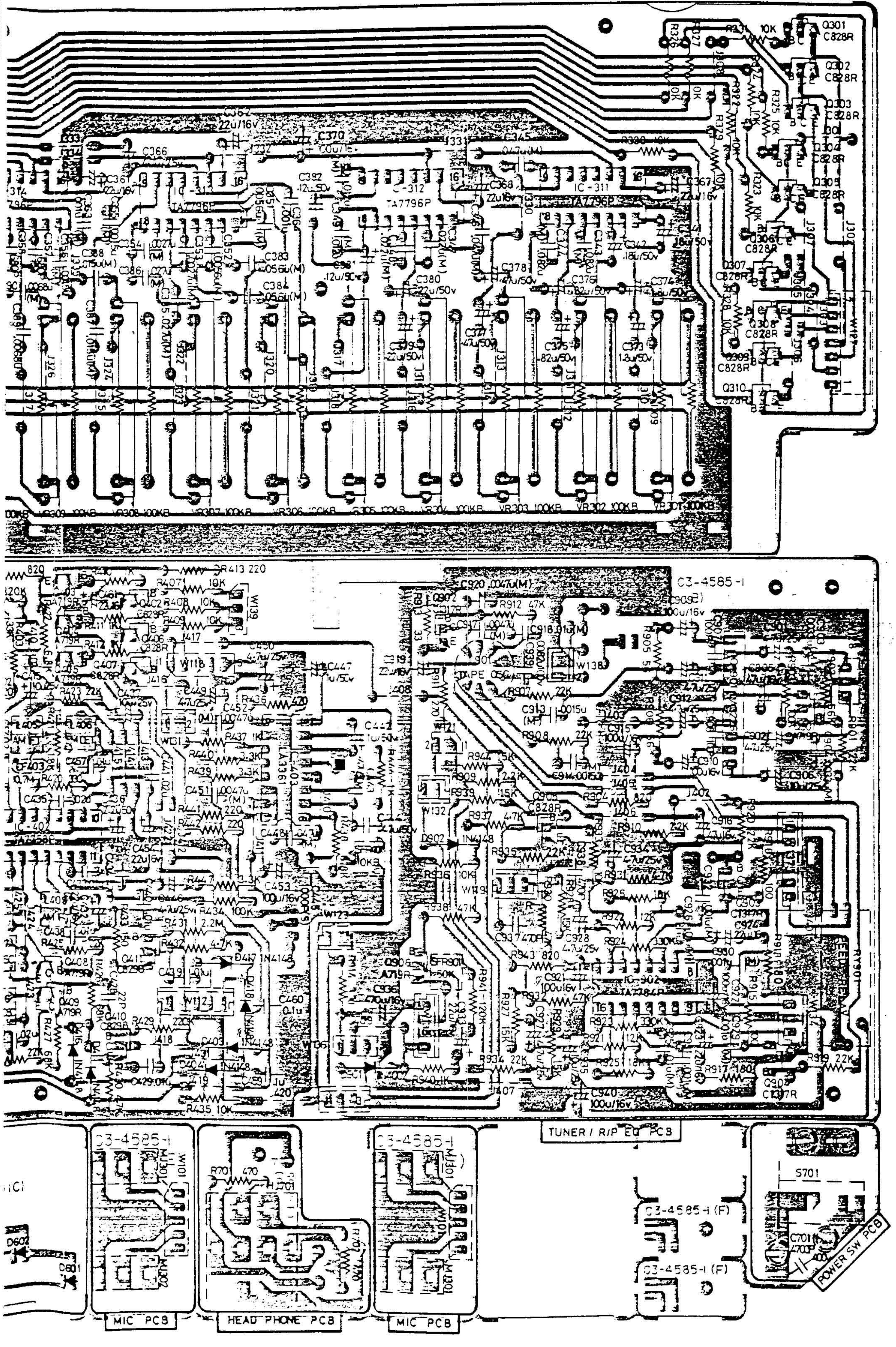
(BOTTOM VIEW)


03-4585-1 (A)
IC-306
LB1213
IC-305
LB1213
IC-309
78N07
IC-310
78L10
IC-301
TA7796P
IC-401
TA7358P
IC-402
TA7358P
LA3361
LW/MW/ BAR ANT
VR311
VR310 100KB
VR309 100KB
VR308 100KB
VR307 100KB
VR306 100KB
03-4538-1(C)
03-4585-1
EIVING/GR EQ/FUN.SW/PRE AMP PCB
POWER METER PCB
MIC PCB
HEAD PHONE PCB

BOARD ASSY

EL: DK-200

TOM VIEW)

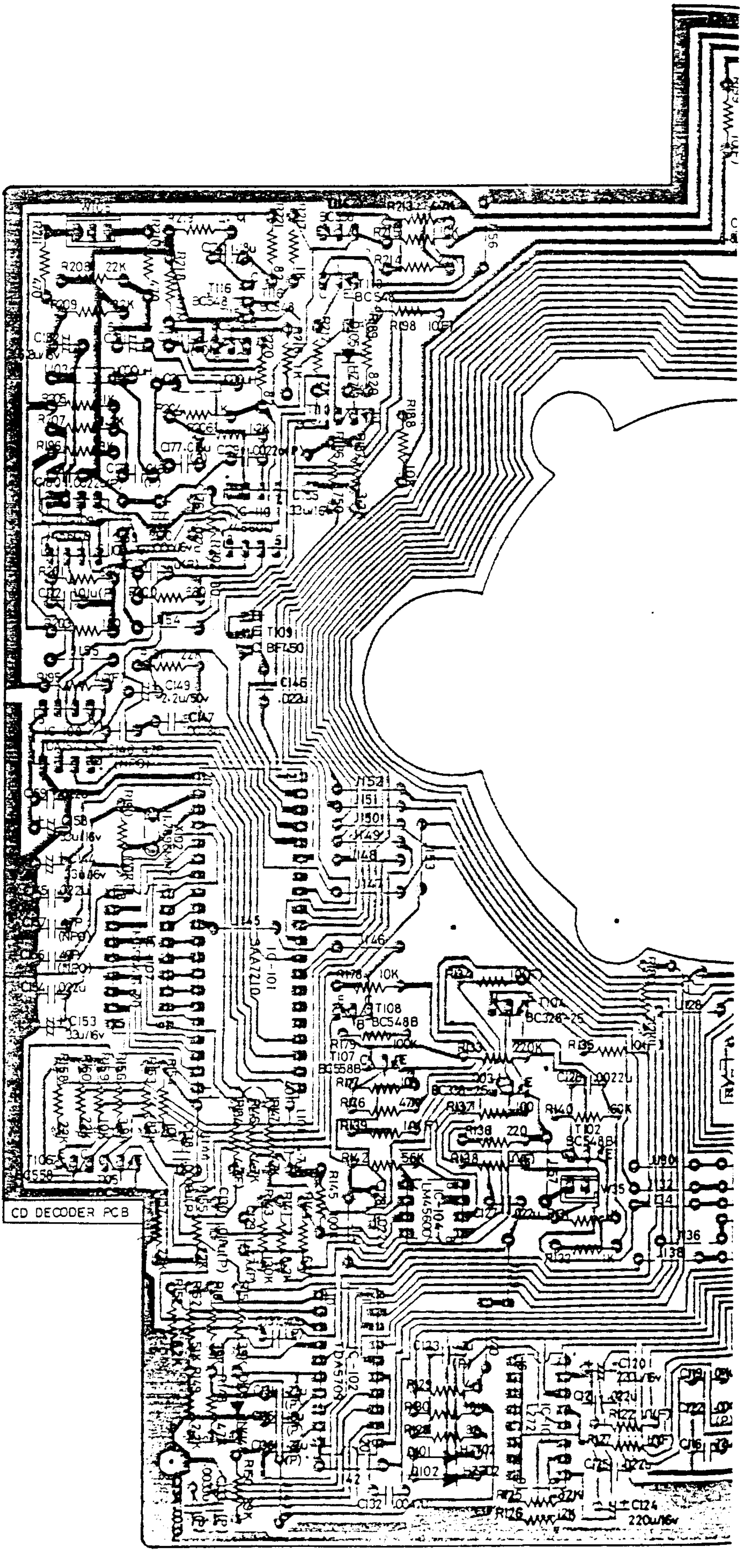

Q301 C828R
Q302 C828R
Q303 C828R
Q304 C828R
Q305 C828R
Q306 C828R
Q307 C828R
Q308 C828R
Q309 C828R
Q310 C828R
C362 22u/16v
C370 100u/16v
C345 0.47u(M)
IC-311 TA7796P
IC-312 TA7796P
TA7796P
VR309 100KB
VR308 100KB
VR307 100KB
VR306 100KB
VR305 100KB
VR304 100KB
VR303 100KB
VR302 100KB
VR301 100KB
R413 220
C3-4585-I
C920 .0047u(M)
R912 47K
LA3361
IC-402
TA7784P
IC-902
TA7784P
Q407 C828R
Q906 A719R
D902 1N4148
D417 1N4148
C940 100u/16v
Q902 C1317R
R919 22K
R435 10K
TUNER / R/P EQ PCB
C3-4585-I
R70 470
C3-4585-I
C3-4585-I (F)
C3-4585-I (F)
S701
C701 4700P
POWER SW PCB
MIC PCB
HEAD PHONE PCB
MIC PCB
D602
D601

MODEL DK-200 C3-4585-I

MAIN P.C BOARD

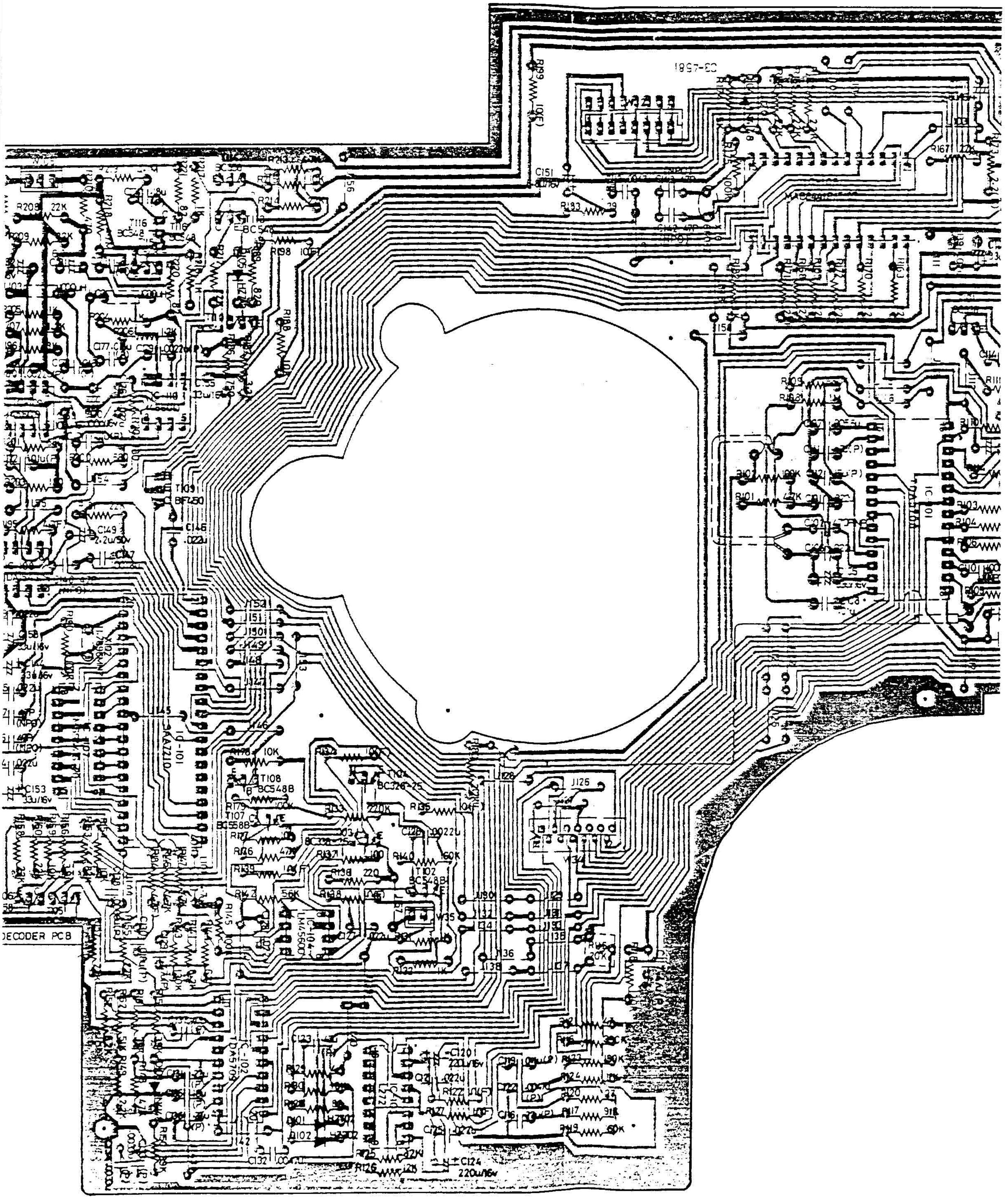
MODE

(BOT


CD DECODER PCB
IC-101
SAA7210
IC-102
TDA5708
T109
BF450
C146
.022u
C149
2.2u/50v
T108
BC548B
T107
BC558B
T102
BC548B
C153
33u/16v
C158
33u/16v
C120
220u/16v
C124
220u/16v
R208
22K
R178
10K
R179
100K
R132
R133
220K
R135
R137
R138
R139
R140
R188
R198
R213
R214
C126
.0022u
W135

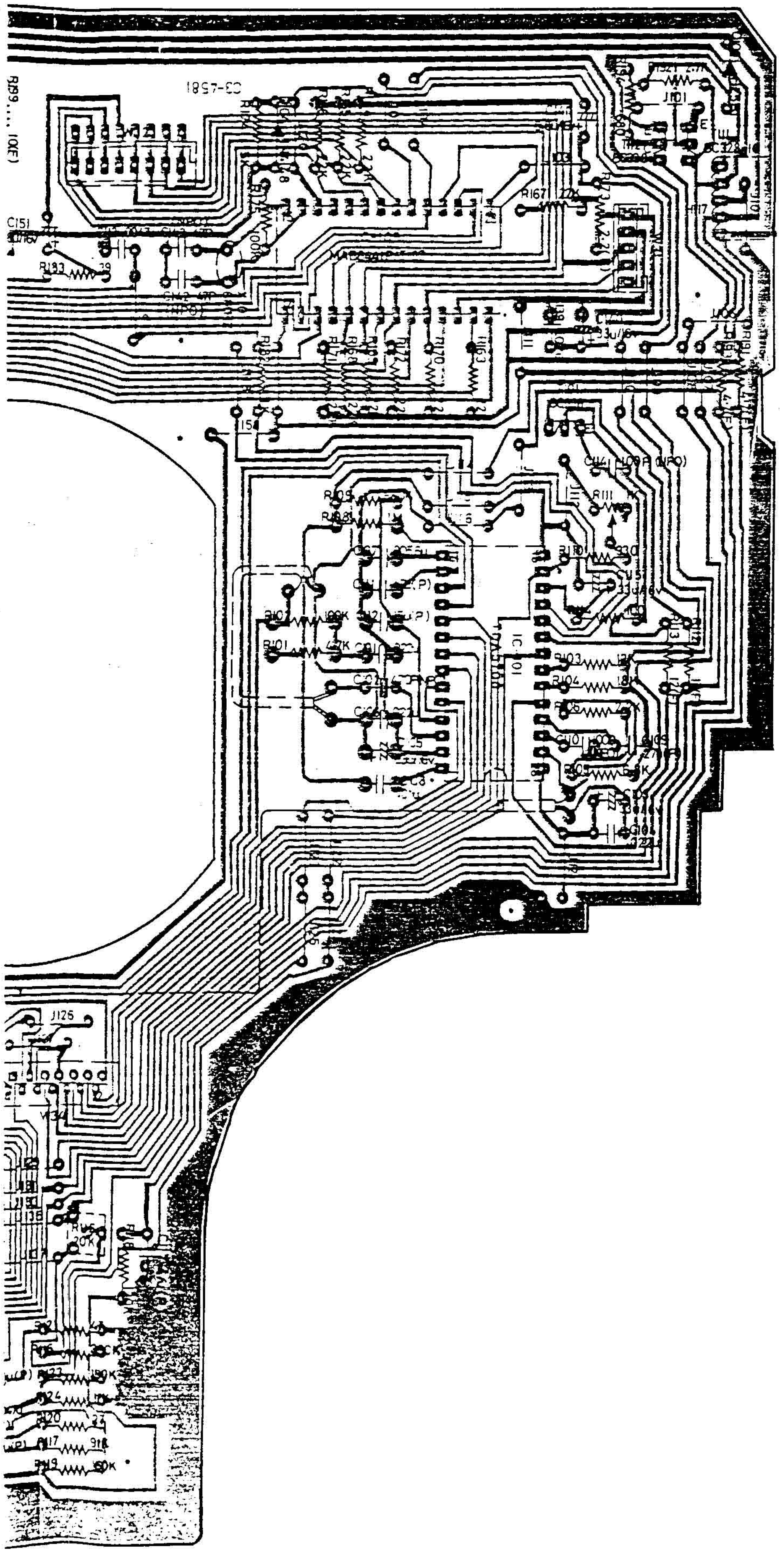
MODEL: DK-200

(BOTTOM VIEW)


DECODER PCB
IC-101
TA7210
IC-102
TDA5709
T109
BF450
T108
BC548B
T107
BC558B
T101
BC328-25
T102
BC548B
T116
BC548
T118
BC548
C149
2.2u/50v
C146
.022u
C151
330u/16v
C124
220u/16v
C1201
220u/16v
C153
33u/16v
C158
33u/16v
R208
22K
R209
32K
R167
22K
R183
R198
R178
10K
R179
R146
R139
R142
56K
R135
R133
220K
R136
R137
R138
220
R140
160K
R141
20K
R116
390K
R117
918
R119
60K
R120
R122
R124
R125
R126
R127
R101
R102
R103
R104
R106
R109
R110
J126
J134
J136
J138
J147
J148
J149
J150
J151
J152
J154
J156
D101
D102
C132
C116
C125
C128
.0022u
C102
C101

L: DK-200

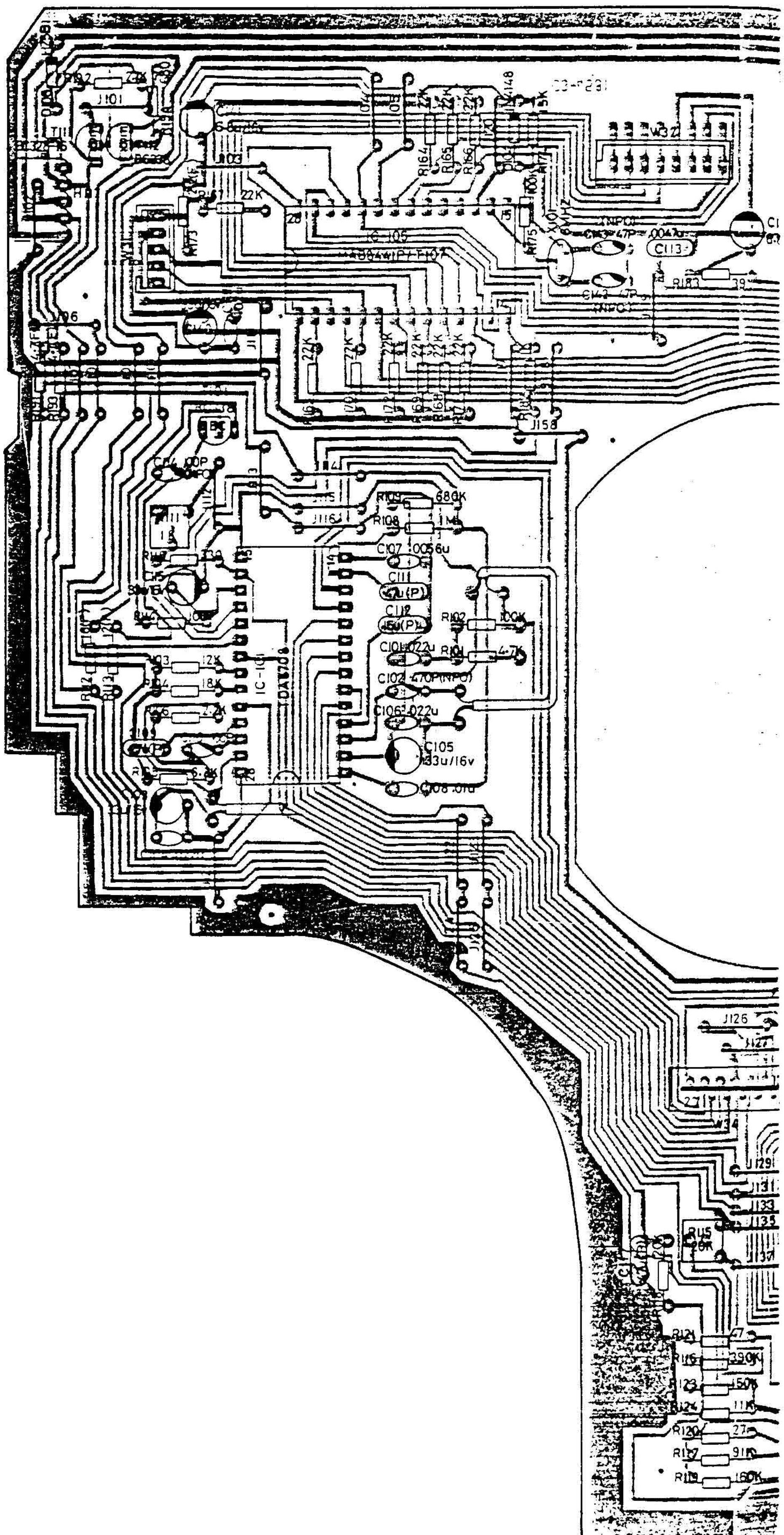
TOM VIEW)



C151
10/16V
R183
39
R132
J101
J103
R167 22K
J117
C141 100P (NPO)
R111
R110
R105
R108
R107 100K
R101 47K
C107
C121
C108
IC101
R103
R104
R105
R106
C101
C102
J156
J126
J134
R146
20K
R123
150K
R124
R120
R117
91K
R119
150K

MODEL

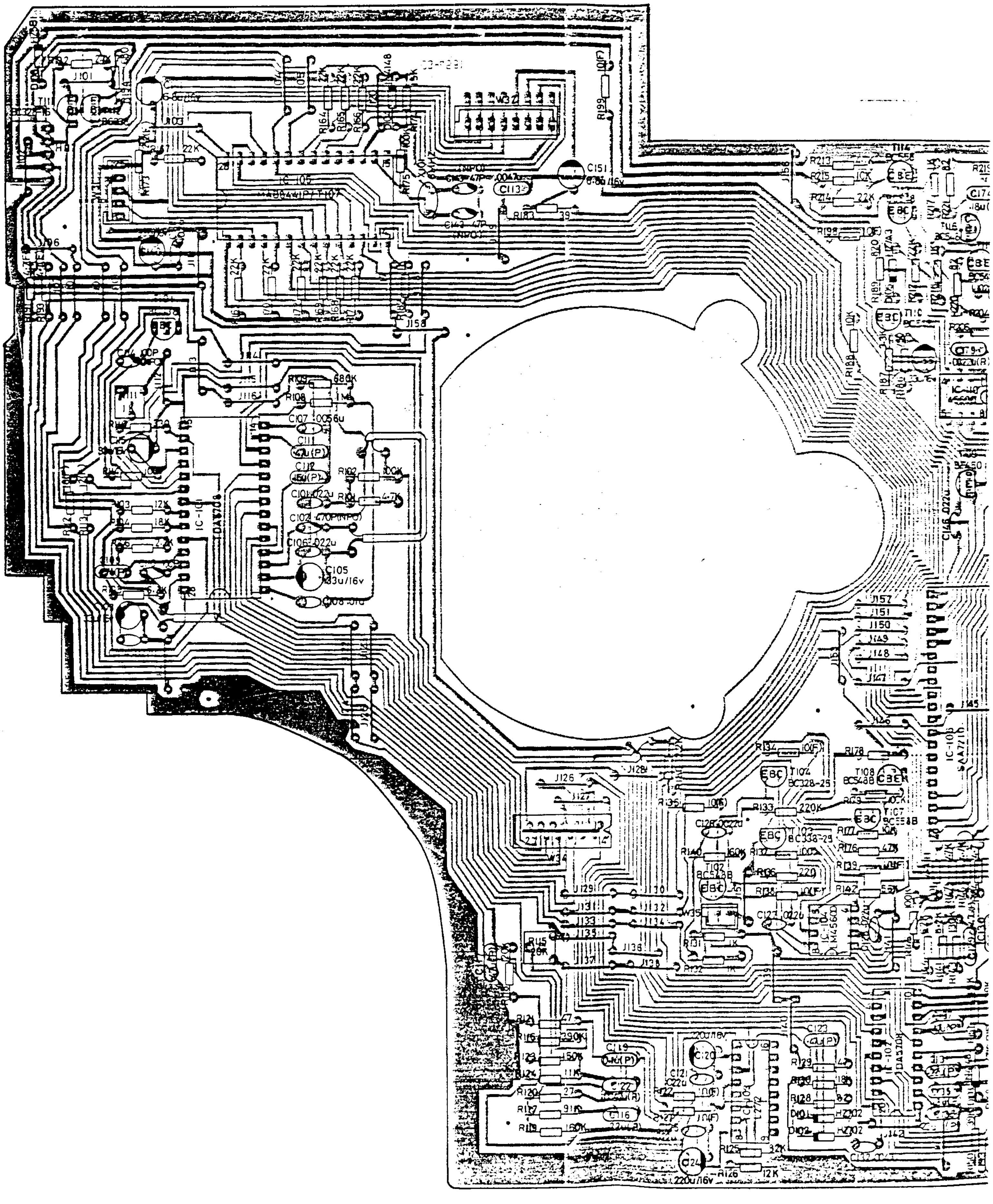
(TOP



J101
J106
J103
J114
J115
J116
J126
J127
J129
J131
J133
J135
J137
J158
W31
W32
W34
IC-105
IC-101
R102 100K
R101 4.7K
R103 12K
R104 18K
R108 1M
R109 680K
R116 390K
R121 47
R123 150K
R124 11K
R120 27
R127 910
R119 160K
R183 39
R164
R165
R166
R173
R175
RU5 20K
C107 .0056u
C111 .47u(P)
C112 .150(P)
C101 .022u
C102 470P(NPO)
C106 .022u
C105 33u/16v
C108 .01u
C113 .0047u
C114 100P
C143 47P (NPO)
C142 47P (NPO)
X101
22K

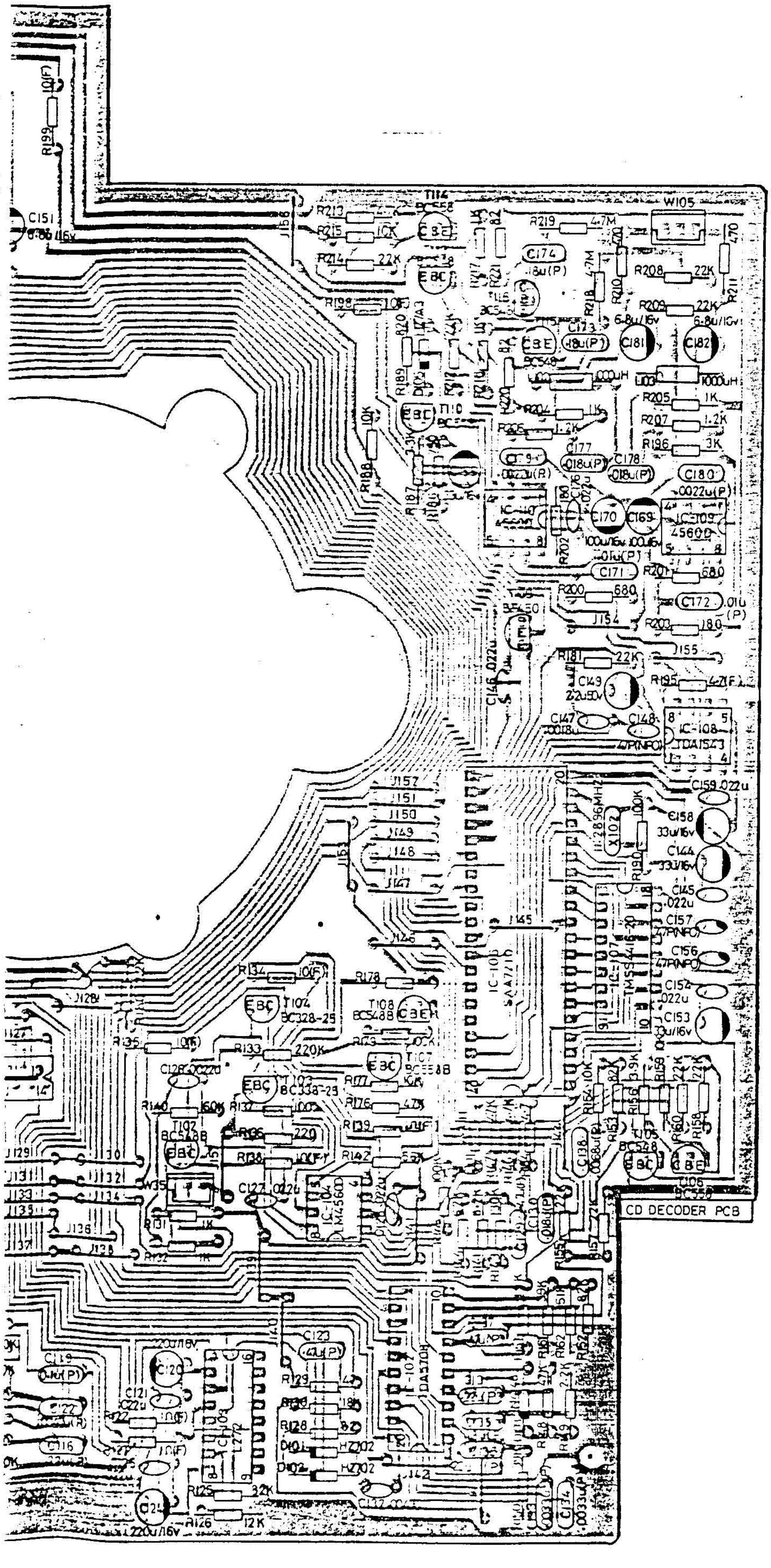
MODEL: DK-200

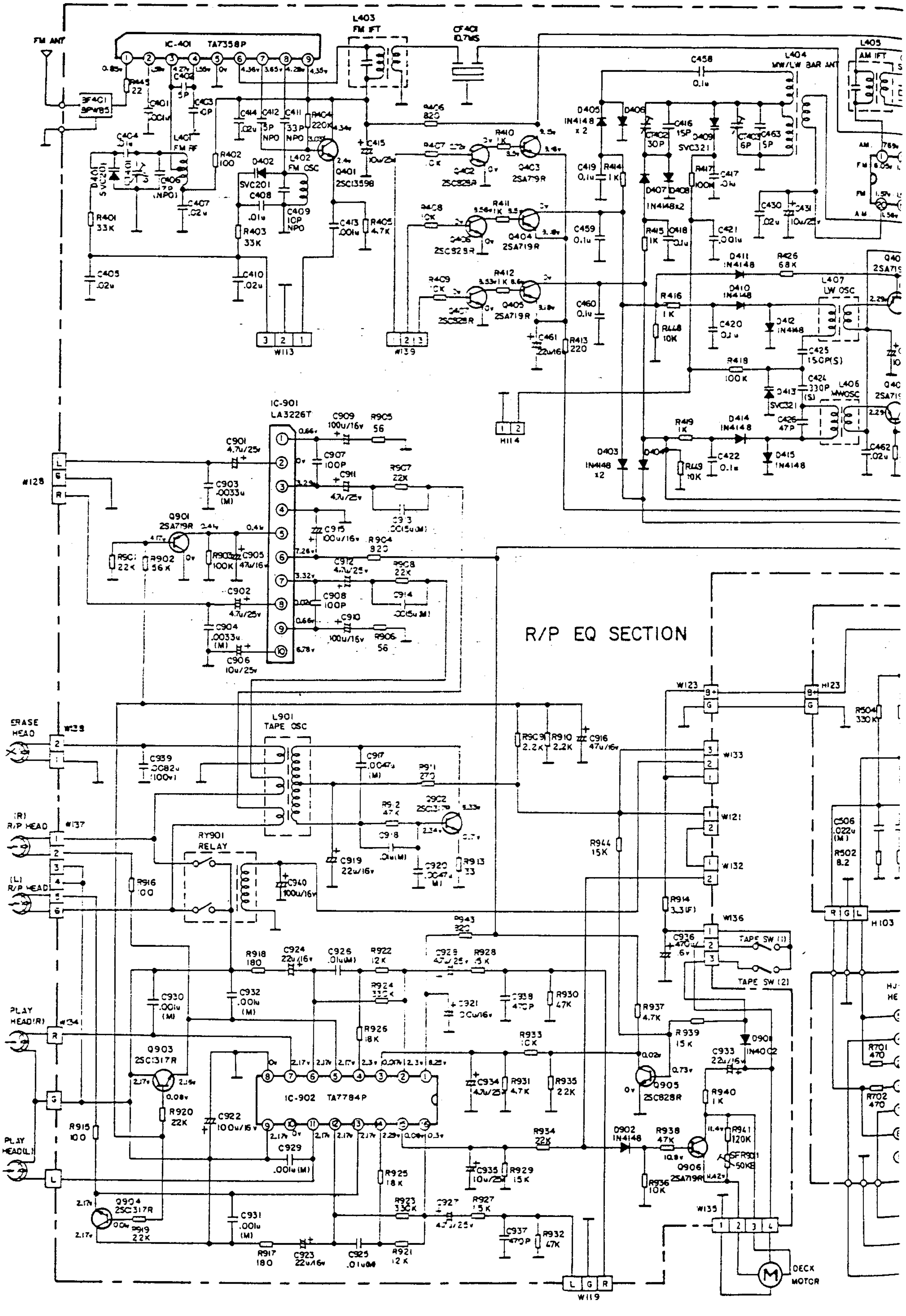
(TOP VIEW)


IC-101
DA1708
IC-105
J101
J103
J116
R108
1M
C107 .0056u
C105
33u/16v
C151
T104
BC328-25
T103
BC338-25
T102
BC548B
T107
BC558B
T108
BC548B
R134
R133
220K
R135
R140
160K
C126
C127
J126
J127
W34
W35
J129
J131
J133
J135
J137
J134
J138
R131
R132
1K
R121
R116
290K
R123
150K
R124
R120
R117
R119
160K
C119
C120
C121
C122
C116
C123
C124
220u/16v
R125
R126
12K
R129
R128
D101
D102
HZ7D2
IC-106
SAA7210
J145
J147
J148
J149
J150
J151
J157
R178
R177
R176
R139
R142
R137
R136
R138
R199
10(F)
R183
39
R213
R215
R214
22K
T114
R198
R188
R187
R164
R165
R166
R102
100K
R101
4.7K
C101 .022u
C102 470P(NPO)
C106 .022u
C108 .01u
C111
C112
R103
12K
R104
18K
R106
2.2K
J158
C143 47P
C113
W32
J106

EL: DK-200

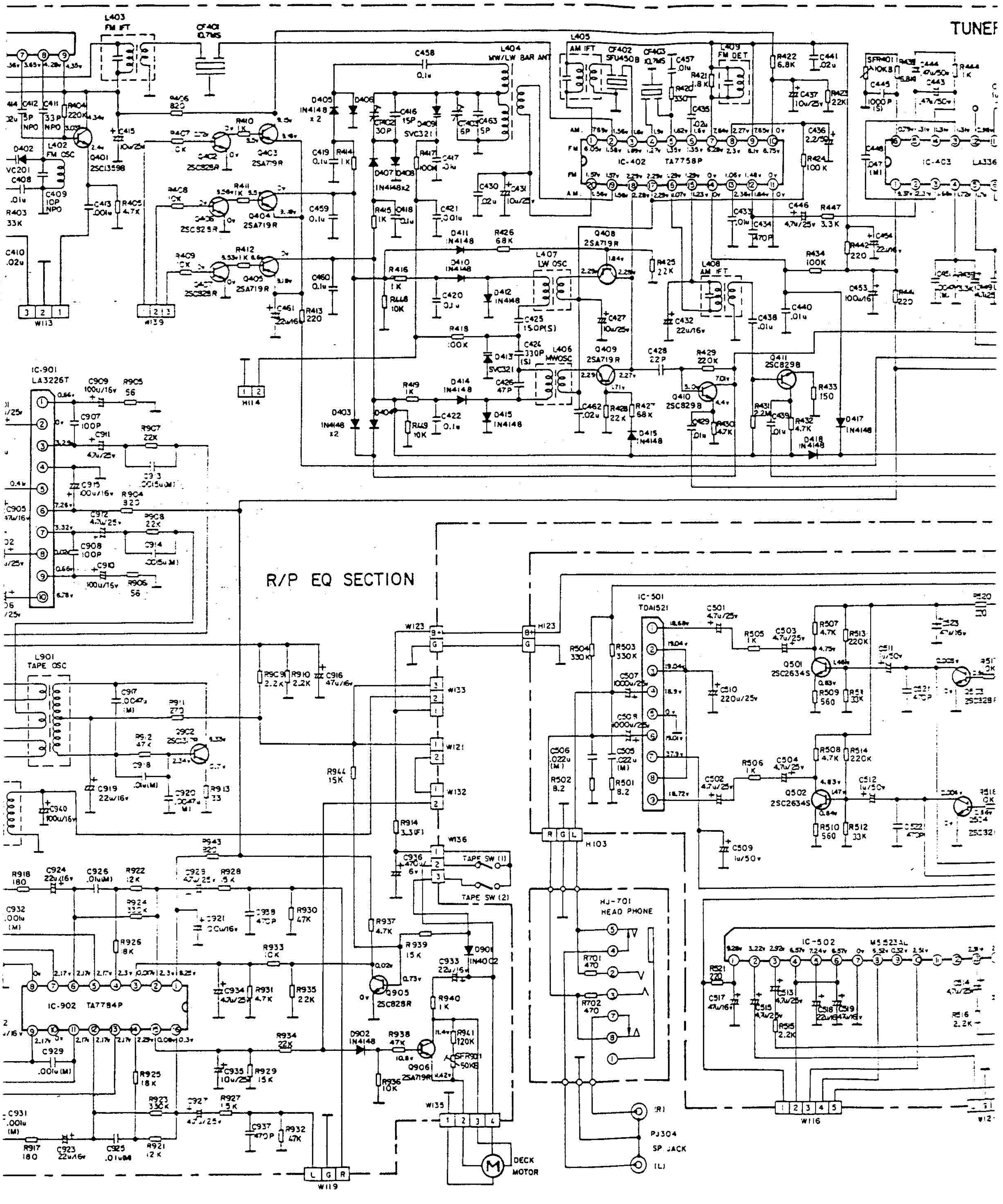
OP VIEW)


CD DECODER PCB
IC-106 SAA7210
IC-107 TMS5416
IC-108 TDA1543
IC-109 4560
IC-110 4560
IC-104 NJM4560D
IC-107 DA5?0H
IC-109 L272
X102 11.2896MHz
T114 BC558
T115 BC548
T110 BC558
T104 BC328-25
T108 BC548B
T107 BC558B
T103 BC338-25
T102 BC548B
T105 BC548
T106 BC558
W105
W35
C151 6.8u/16v
C174 .18u(P)
C173 .18u(P)
C181
C182
C177 .018u(P)
C178 .018u(P)
C180 .0022u(P)
C179 .0022u(P)
C170 100u/16v
C169 100u/16v
C171 .01u(P)
C172 .01u(P)
C149 2.2u50v
C147 .0018u
C148 47P(NPO)
C159 .022u
C158 33u/16v
C144 33u/16v
C145 .022u
C157 47P(NPO)
C156 47P(NPO)
C154 .022u
C153 33u/16v
C146 .022u
C128 .0022u
C127 .022u
C138 .0068u(P)
C120 220u/16v
C123 .47u(P)
C119 .0047u(P)
C121 .22u
C122
C116
C124 220u/16v
C134 .0033u(P)
C133 .0033u(P)
C137
R199 10(F)
R213 4.7K
R215 10K
R214 22K
R198 100
R219 4.7M
R208 22K
R209 22K
R211 470
R205 1K
R207 1.2K
R196 3K
R204 1K
R206 1.2K
R188 10K
R187
R200 680
R201 680
R203 180
R202
R181 22K
R195 4.7(F)
R190 100K
R134 10(F)
R178
R135 10(F)
R133 220K
R173 10K
R177 10K
R176 47K
R140 560K
R137 100
R136 220
R138 100(F)
R139 10(F)
R142 56K
R131 1K
R132 1K
R164 10K
R163 82K
R156 3.9K
R159
R160 22K
R158 22K
R157
R155
R161
R162
R129 47
R130 180
R128 82
R122
R125 33K
R126 12K
D101 HZ7.0?
D102 HZ7.0?
L102 1000uH
L103 1000uH
J168
J152
J151
J150
J149
J148
J147
J146
J145
J154
J155
J128
J129
J130
J131
J132
J133
J134
J135
J136
J137
J138
J140
J142


FM ANT
IC-401 TA7358P
L403 FM IFT
CF401 10.7MS
L404 MW/LW BAR ANT
L405 AM IFT
C458 0.1u
L401 FM RF
L402 FM OSC
Q401 2SC1359B
D401 SVC201
D402 SVC201
BF401 BPW85
R445 22
R401 33K
R402 100
R403 33K
R404 220K
R405 4.7K
R406 820
R407 10K
R408 10K
R409 10K
R410 1K
R411 1K
R412 1K
R413 220
R414 1K
R415 1K
R416 1K
R417 100K
R418 100K
R419 1K
R426 68K
R448 10K
R449 10K
Q402 2SC828R
Q403 2SA719R
Q404 2SA719R
Q405 2SA719R
Q406 2SC828R
Q407 2SC828R
D405 1N4148 x 2
D407 D408 1N4148x2
D409 SVC321
D410 1N4148
D411 1N4148
D412 1N4148
D413 SVC321
D414 1N4148
D415 1N4148
D403 1N4148 x2
L407 LW OSC
L406 MW OSC
W113
W139
H114
IC-901 LA3226T
Q901 2SA719R
C901 4.7u/25v
C902 4.7u/25v
C903 .0033u (M)
C904 .0033u (M)
C905 47u/16v
C906 10u/25v
C907 100P
C908 100P
C909 100u/16v
C910 100u/16v
C911 4.7u/25v
C912 4.7u/25v
C913 .0015u(M)
C914 .0015u(M)
C915 100u/16v
R901 22K
R902 56K
R903 100K
R904 820
R905 56
R906 56
R907 22K
R908 22K
W128
R/P EQ SECTION
ERASE HEAD
W138
C939 .0082u (100v)
L901 TAPE OSC
C917 .0047u (M)
R911 270
Q902 2SC1317R
R912 47K
C918 .01u(M)
C919 22u/16v
C920 .0047u (M)
R913 33
RY901 RELAY
C940 100u/16v
(R) R/P HEAD
W137
(L) R/P HEAD
R916 100
R909 2.2K
R910 2.2K
C916 47u/16v
W123
H123
W133
W121
W132
R944 15K
R914 3.3(F)
W136
TAPE SW (1)
TAPE SW (2)
C936 470u/6v
R943 820
R918 180
C924 22u/16v
C926 .01u(M)
R922 12K
C928 4.7u/25v
R928 15K
C930 .001u (M)
C932 .001u (M)
R924 330K
C921 100u/16v
C938 470P
R930 47K
R926 18K
PLAY HEAD(R)
W134
Q903 2SC1317R
R920 22K
IC-902 TA7784P
C922 100u/16v
C929 .001u(M)
C934 4.7u/25v
R931 4.7K
R935 22K
R933 10K
R937 4.7K
R939 15K
Q905 2SC828R
D901 1N4002
C933 22u/16v
R940 1K
R941 120K
SFR901 50KB
Q906 2SA719R
D902 1N4148
R938 47K
R936 10K
R934 22K
C935 10u/25v
R929 15K
PLAY HEAD(L)
R915 100
R925 18K
Q904 2SC1317R
R919 22K
C931 .001u (M)
R923 330K
C927 4.7u/25v
R927 15K
C937 470P
R932 47K
R917 180
C923 22u/16v
C925 .01u(M)
R921 12K
W119
W135
DECK MOTOR
R504 330K
C506 .022u (M)
R502 8.2
H103
R701 470
R702 470

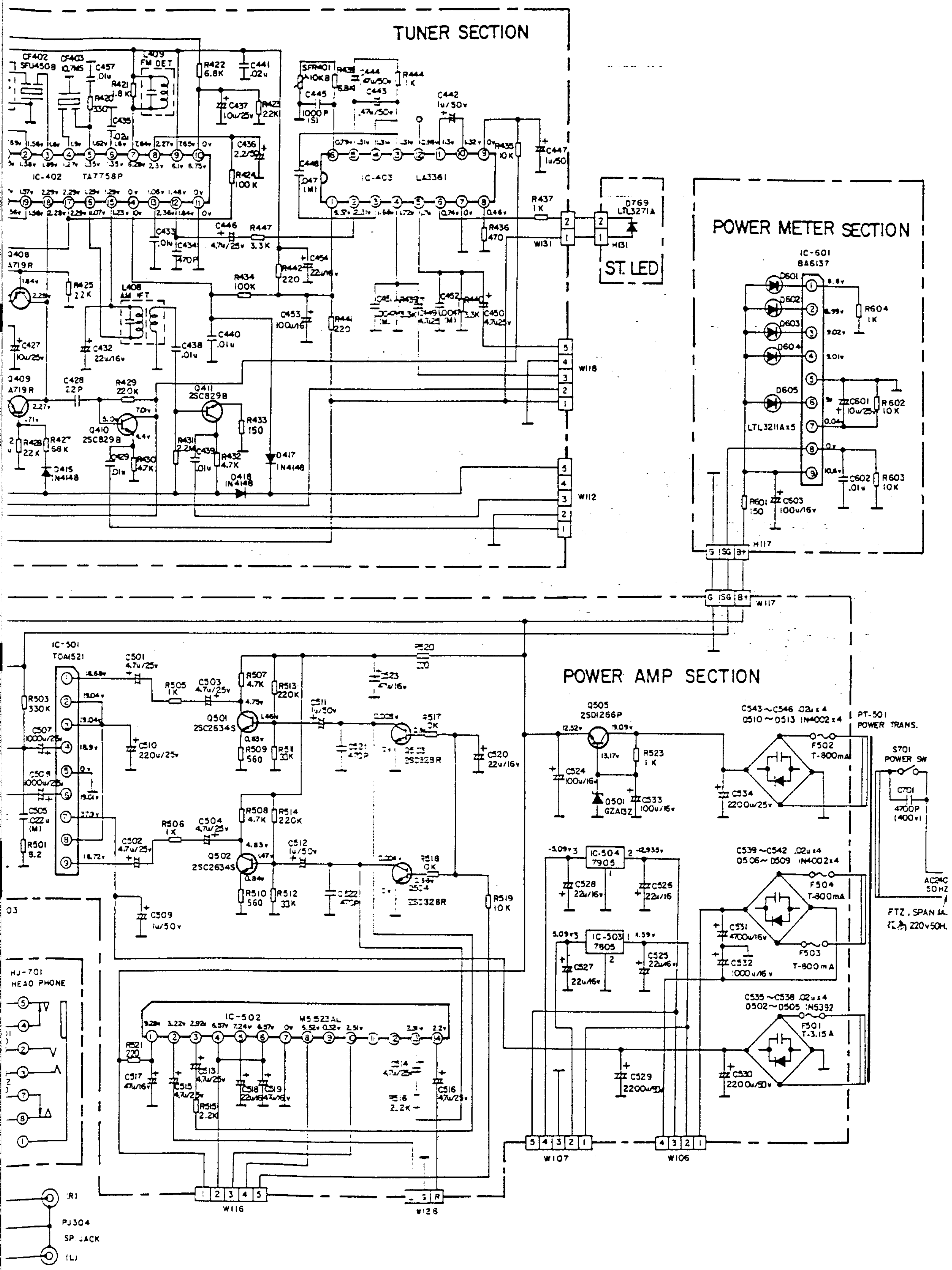
(TUNER/R/P EQ/POWER AMP)

MODEL: DK-200

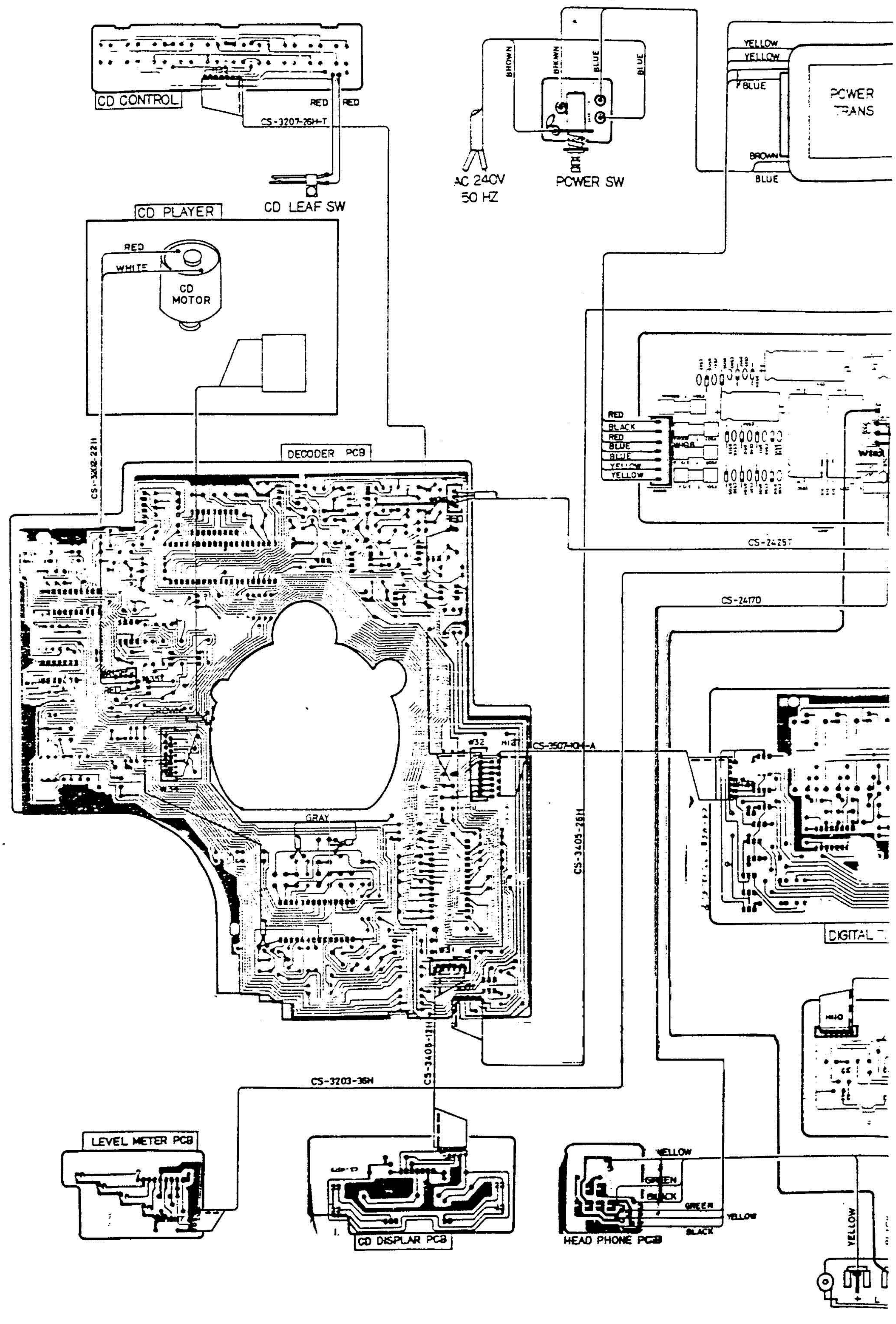

TUNER
L403 FM IFT
CF401 10.7MS
L404 MW/LW BAR ANT
L405 AM IFT
CF402 SFU450B
CF403 10.7MS
L409 FM DET
L402 FM OSC
Q401 2SC1359B
VC201
Q402 2SC928R
Q403 2SA719R
Q406 2SC928R
Q404 2SA719R
Q407 2SC928R
Q405 2SA719R
W113
W139
H114
IC-402 TA7758P
IC-403 LA336
SFR401 10KB
L407 LW OSC
L406 MW OSC
L408 AM IFT
Q408 2SA719R
Q409 2SA719R
Q410 2SC829B
Q411 2SC829B
IC-901 LA3226T
L901 TAPE OSC
Q902 2SC3179
R/P EQ SECTION
W123
H123
W133
W121
W132
W136
TAPE SW (1)
TAPE SW (2)
IC-501 TDA1521
Q501 2SC2634S
Q502 2SC2634S
H103
HJ-701 HEAD PHONE
IC-902 TA7784P
Q905 2SC828R
Q906 2SA719R
SFR901 50KB
D901 1N4002
D902 1N4148
W135
DECK MOTOR
PJ304 SP JACK
(R)
(L)
W119
IC-502 M5523AL
W116

Q / POWER AMP)

DEL: DK-200

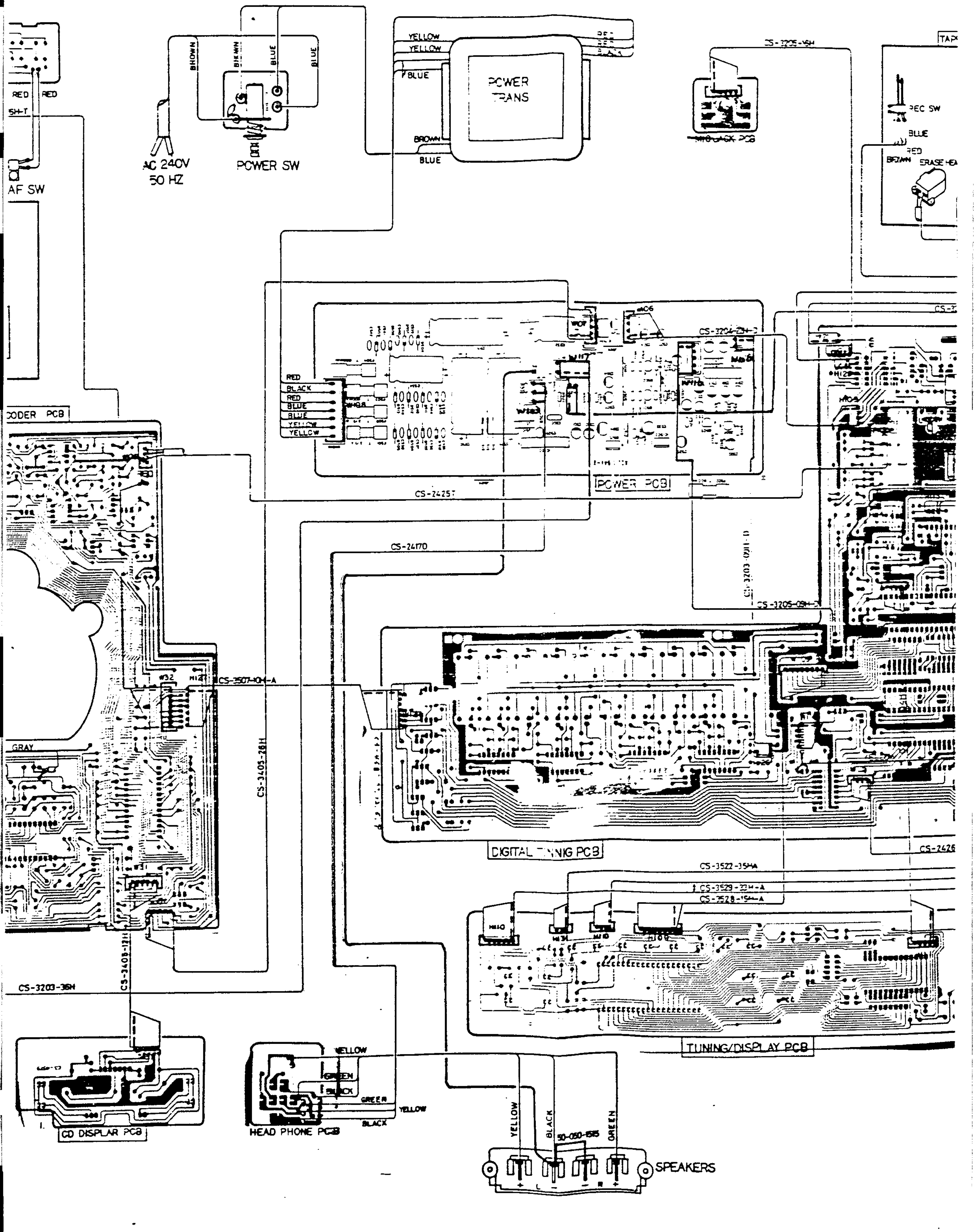

TUNER SECTION
CF402 SFU4508
CF403 10.7MS
C457 .01u
L409 FM DET
R421 1.8K
R420 330
C435 .02u
R422 6.8K
C441 .02u
C437 10u/25v
R423 22K
C436 2.2/50
R424 100K
IC-402 TA7758P
SFR401 10K8
R438 6.8K
C444 .47u/50v
R444 1K
C445 1000P (S)
C443 .47u/50v
C442 1u/50v
C447 1u/50
R435 10K
C448 .047 (M)
IC-403 LA3361
R437 1K
R436 470
W131
H131
D769 LTL3271A
ST. LED
Q408 A719R
R425 22K
L408 AM IFT
C433 .01u
C434 470P
C446 4.7u/25v
R447 3.3K
R442 220
C454 22u/16v
R434 100K
C453 100u/16
R441 220
C451
R439 3.3K
C449 4.7u25
C452 .0047 (M)
R440 3.3K
C450 4.7u25v
C427 10u/25v
C432 22u/16v
C438 .01u
C440 .01u
W118
Q409 A719R
C428 22P
R429 220K
Q411 2SC829B
R433 150
Q410 2SC829B
R428 22K
R427 68K
D415 1N4148
C429 .01u
R430 4.7K
R431 2.2M
C439 .01u
R432 4.7K
D417 1N4148
D418 1N4148
W112
POWER METER SECTION
IC-601 BA6137
D601
D602
D603
D604
D605
LTL3211Ax5
R604 1K
C601 10u/25v
R602 10K
C602 .01u
R603 10K
R601 150
C603 100u/16v
H117
G ISG B+
W117
POWER AMP SECTION
IC-501 TDA1521
R503 330K
C507 1000u/25v
C508 1000u/25v
C505 .022u (M)
R501 8.2
C501 4.7u/25v
C510 220u/25v
C502 4.7u/25v
C509 1u/50v
R505 1K
C503 4.7u/25v
R507 4.7K
R513 220K
Q501 2SC2634S
R509 560
R511 33K
C511 1u/50v
C521 470P
Q503 2SC328R
R517 10K
C520 22u/16v
R520
C523 47u/16v
R506 1K
C504 4.7u/25v
R508 4.7K
R514 220K
Q502 2SC2634S
R510 560
R512 33K
C512 1u/50v
C522 470P
Q504 2SC328R
R518 10K
R519 10K
Q505 2SD1266P
R523 1K
C524 100u/16v
D501 GZA13Z
C533 100u/16v
C534 2200u/25v
C543~C546 .02u x 4
D510~D513 1N4002 x 4
F502 T-800mA
PT-501 POWER TRANS.
S701 POWER SW
C701 4700P (400v)
AC240 50HZ
FTZ, SPAN
220v 50H
IC-504 7905
C528 22u/16v
C526 22u/16
IC-503 7805
C527 22u/16v
C525 22u/16v
C539~C542 .02u x 4
D506~D509 1N4002 x 4
F504 T-800mA
C531 4700u/16v
C532 1000u/16v
F503 T-800mA
C535~C538 .02u x 4
D502~D505 1N5392
F501 T-3.15A
C529 2200u/50v
C530 2200u/50v
W107
W106
HJ-701 HEAD PHONE
IC-502 M5523AL
R521 270
C517 47u/16v
C515 4.7u/25v
R515 2.2K
C513 4.7u/25v
C518 22u/16v
C519 47u/16v
C514 4.7u/25v
R516 2.2K
C516 47u/25v
W116
W126
PJ304 SP JACK
(R)
(L)

W


CD CONTROL
RED
RED
CS-3207-26H-T
CD LEAF SW
BROWN
BROWN
BLUE
BLUE
AC 240V
50 HZ
POWER SW
YELLOW
YELLOW
BLUE
POWER
TRANS
BROWN
BLUE
CD PLAYER
RED
WHITE
CD
MOTOR
CS-3202-22H
DECODER PCB
RED
BLACK
RED
BLUE
BLUE
YELLOW
YELLOW
CS-2425T
CS-2417D
RED
BROWN
GRAY
#32
H127
CS-3507-10H-A
CS-3405-26H
DIGITAL
CS-3203-36H
CS-3408-12H
LEVEL METER PCB
CD DISPLAR PCB
YELLOW
GREEN
BLACK
GREEN
YELLOW
BLACK
HEAD PHONE PCB
YELLOW

WIRING DIAGRAM

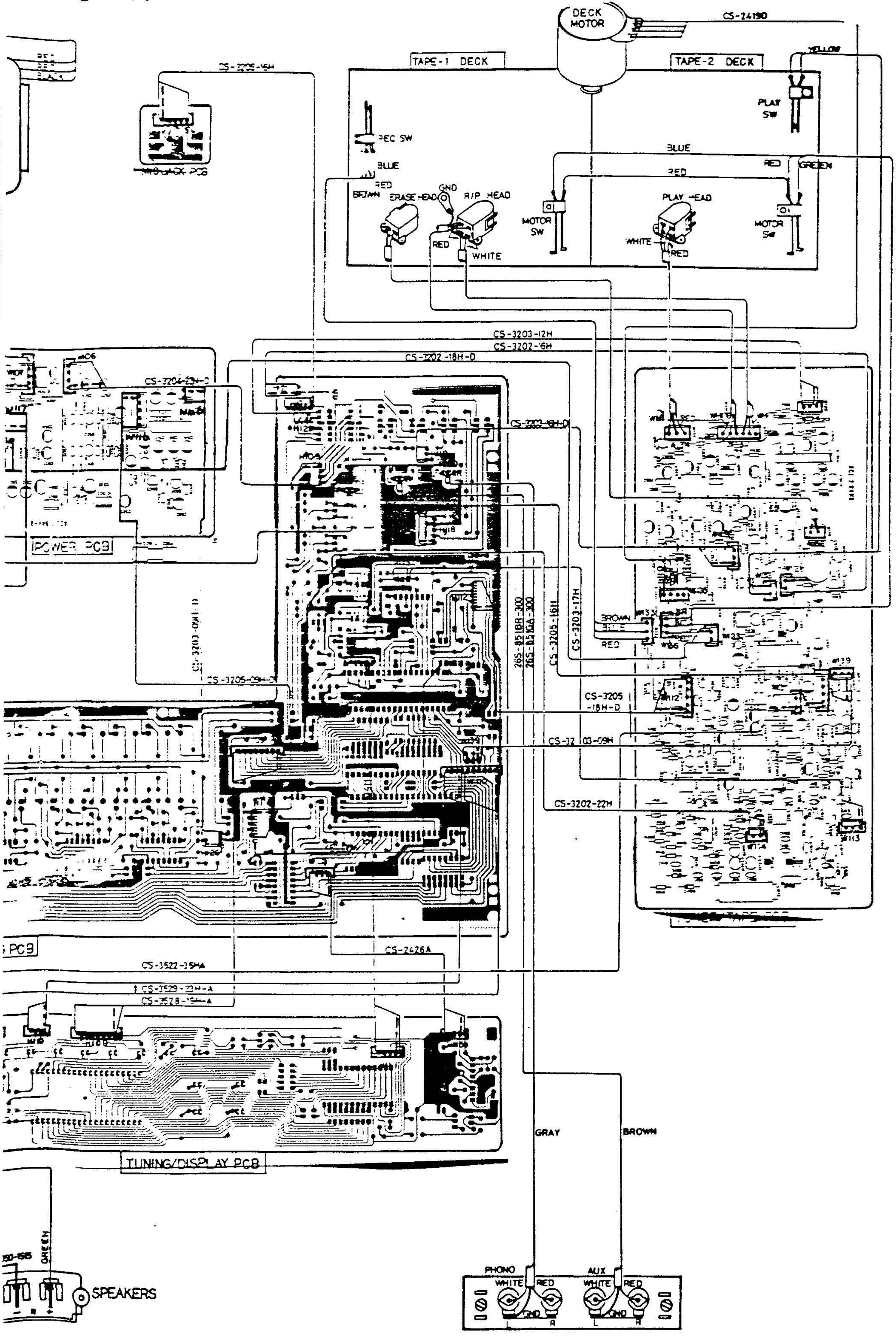
MODEL: DK-200



RED
RED
AF SW
AC 240V
50 HZ
BROWN
BLUE
BLUE
POWER SW
YELLOW
YELLOW
BLUE
POWER TRANS
BROWN
BLUE
CS-3205-15H
MIC JACK PCB
REC SW
BLUE
RED
BROWN
ERASE HEA
RED
BLACK
RED
BLUE
BLUE
YELLOW
YELLOW
W108
W107
W106
W111
CS-3204-23H-2
POWER PCB
CS-24257
CS-24170
CS-3203-03H-D
CS-3205-09H-D
CODER PCB
W32
CS-3507-10H-A
CS-3405-28H
GRAY
DIGITAL TUNIG PCB
CS-3522-35HA
CS-3529-33H-A
CS-3528-15H-A
CS-2426
TUNING/DISPLAY PCB
CS-3203-36H
CS-3405-12H
CD DISPLAR PCB
YELLOW
GREEN
BLACK
GREEN
YELLOW
BLACK
HEAD PHONE PCB
YELLOW
BLACK
50-050-1515
GREEN
SPEAKERS
+
L
-
-
R
+

NG DIAGRAM

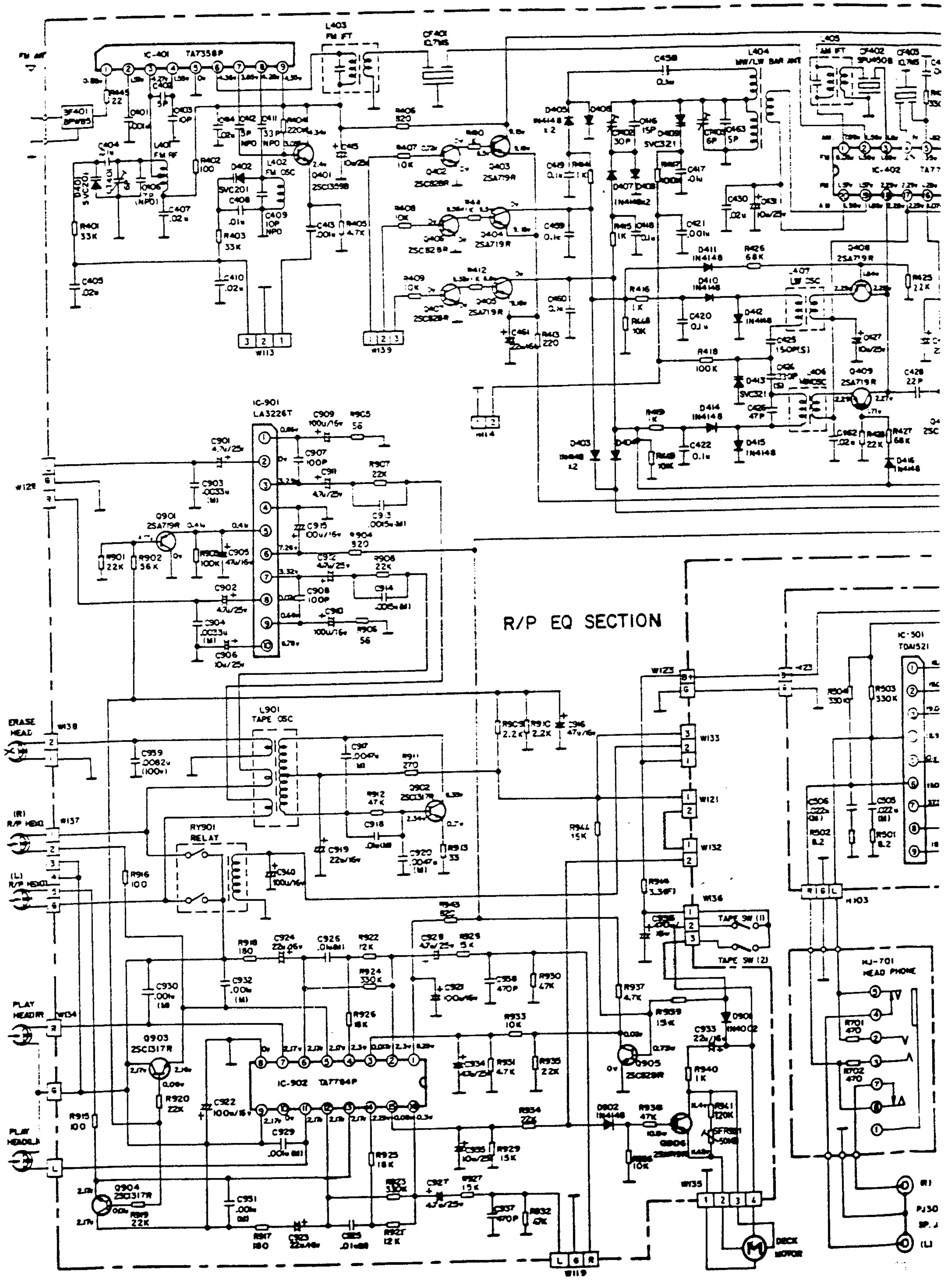
MODEL: DK-200


DECK MOTOR
CS-2419D
TAPE-1 DECK
TAPE-2 DECK
YELLOW
PLAY SW
CS-3205-15H
REC SW
BLUE
RED
BROWN
ERASE HEAD
GND
R/P HEAD
RED
WHITE
BLUE
RED
GREEN
MOTOR SW
PLAY HEAD
WHITE
RED
MOTOR SW
CS-3203-12H
CS-3202-16H
CS-3202-18H-D
CS-3204-23H-D
CS-3202-15H-D
POWER PCB
CS-3203-09H-D
CS-3205-09H-D
26S-851BR-300
26S-851GA-300
CS-3205-16H
CS-3203-17H
BROWN
BLUE
RED
CS-3205
-18H-D
CS-3203-09H
CS-3202-22H
PCB
CS-2426A
CS-3522-35HA
CS-3529-22H-A
CS-3528-15H-A
TUNING/DISPLAY PCB
GRAY
BROWN
GREEN
SPEAKERS
PHONO
AUX
WHITE
RED
WHITE
RED
GND
GND
L
R
L
R

SCHEMATIC DIAGRAM

(TUNER / R/P EQ / POWER AMP

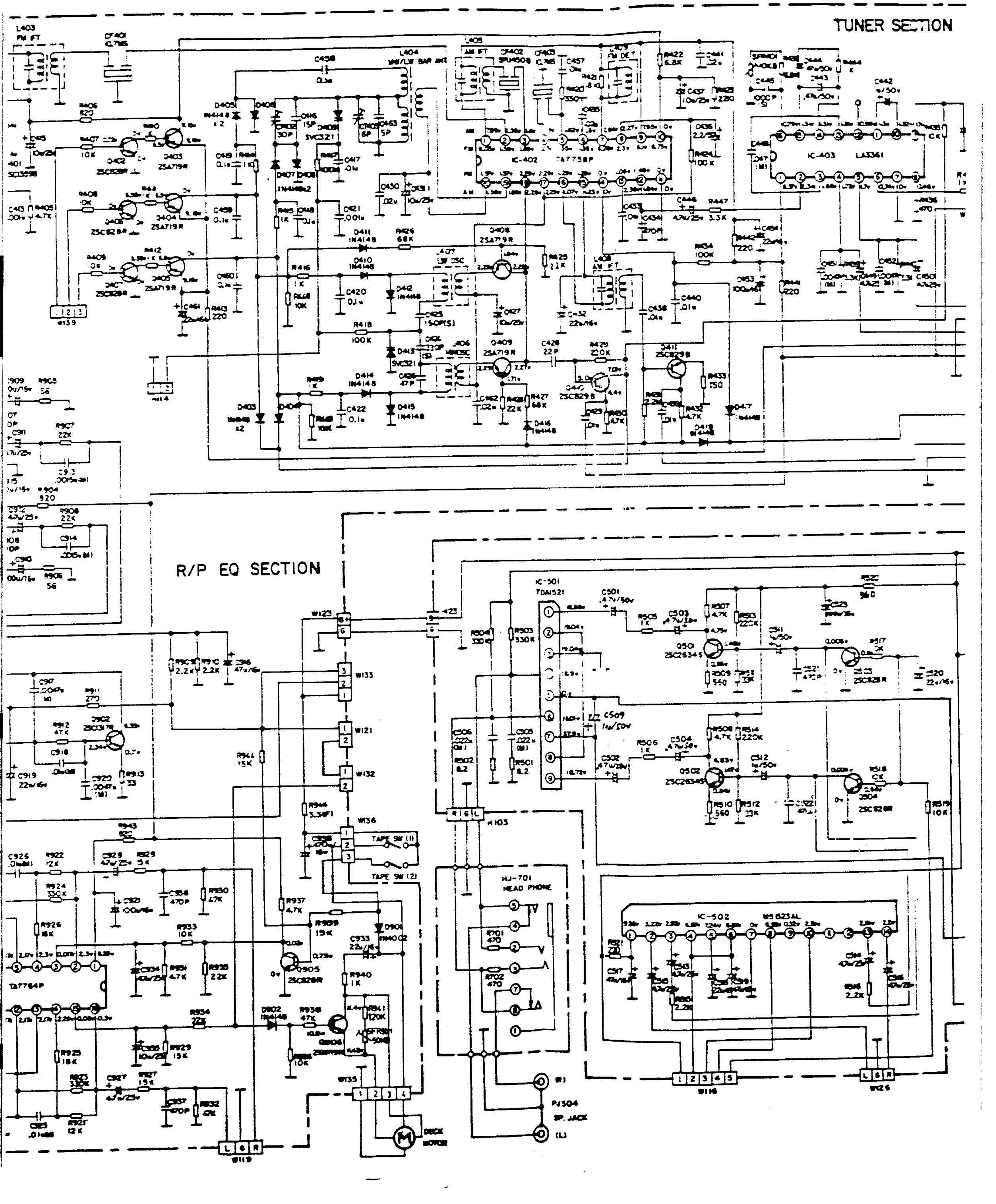
MODEL : DK-200


FM ANT
IC-401 TA7358P
L403 FM IFT
CF401 10.7MS
L404 MW/LW BAR ANT
L405 AM IFT
CF402 SFU450B
CF403 10.7MS
IC-402
BF401 BPW85
L401 FM RF
L402 FM OSC
Q401 2SC1359B
Q402 2SC828R
Q403 2SA719R
Q404 2SA719R
Q405 2SA719R
Q406 2SC828R
Q407 2SC828R
Q408 2SA719R
Q409 2SA719R
L407 LW OSC
L406 MW OSC
W113
W139
W114
IC-901 LA3226T
Q901 2SA719R
W128
ERASE HEAD
W138
L901 TAPE OSC
Q902 2SC1317R
(R) R/P HEAD
W137
RY901 RELAY
(L) R/P HEAD
R/P EQ SECTION
W123
W133
W121
W132
W136
TAPE SW (1)
TAPE SW (2)
IC-501 TDA1521
W103
HJ-701 HEAD PHONE
PLAY HEAD(R)
W134
Q903 2SC1317R
IC-902 TA7784P
Q905 2SC828R
D901 1N4002
D902 1N4148
Q906 2SB1151R
VFR901 50KB
PLAY HEAD(L)
Q904 2SC1317R
W135
DECK MOTOR
W119
(R)
PJ30
SP. J
(L)

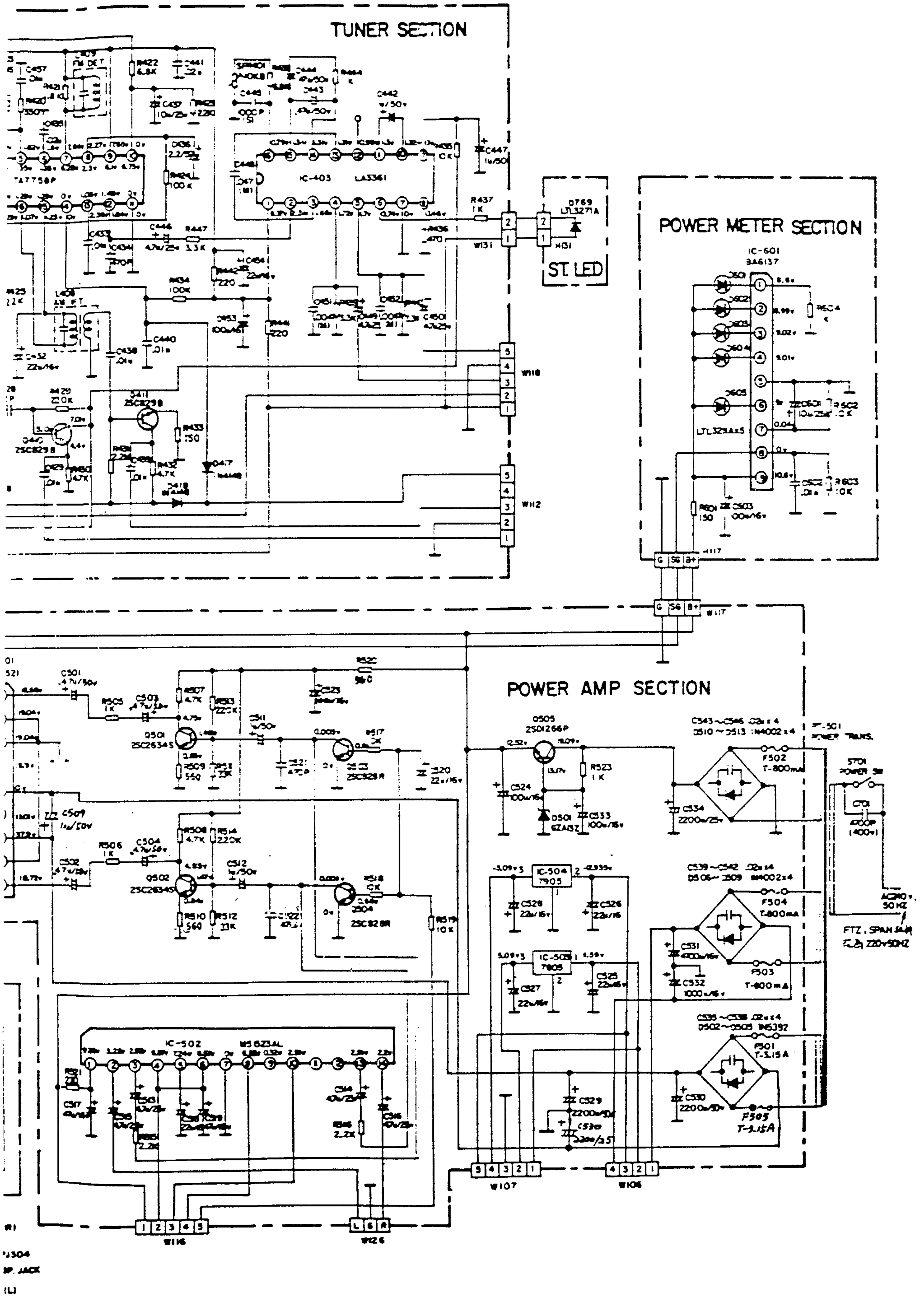
SCHEMATIC DIAGRAM

(TUNER / R/P EQ / POWER AMP)

MODEL : DK-200


TUNER SECTION
R/P EQ SECTION
L403 FM IFT
CF401 10.7MS
L404 MW/LW BAR ANT
L405 AM IFT
CF402 SFU450B
CF403 10.7MS
L409 FM DET
IC-402 TA7758P
IC-403 LA3361
L407 LW OSC
L406 MW OSC
L408 AM IFT
Q402 2SC828R
Q403 2SA719R
Q404 2SA719R
Q405 2SA719R
Q406 2SC828R
Q407 2SC828R
Q408 2SA719R
Q409 2SA719R
Q410 2SC829B
Q411 2SC829B
SFR401
W139
W114
W123
W133
W121
W132
W136
TAPE SW (1)
TAPE SW (2)
IC-501 TDA1521
Q501 2SC2634S
Q502 2SC2634S
Q503 2SC828R
Q504 2SC828R
H103
HJ-701 HEAD PHONE
IC-502 M5623AL
TA7784P
Q902 2SC1317R
Q905 2SC828R
Q906 2SB1112R
D901 1N4002
D902 1N4148
SFR901 50KB
W135
DECK MOTOR
PJ304 SP. JACK
(R)
(L)
W116
W126
W119

P)


TUNER SECTION
IC-403 LA3361
TA7758P
ST. LED
D769 LTL3271A
W131
H131
W118
W112
POWER METER SECTION
IC-601 BA6137
LTL323AAx5
H117
W117
POWER AMP SECTION
Q501 2SC2634S
Q502 2SC2634S
Q505 2SD1266P
D501 6ZA13Z
IC-504 7905
IC-505 7805
IC-502 M56Z3AL
C543~C546 .02u x 4
D510~D513 1N4002 x 4
C539~C542 .02u x4
D506~D509 1N4002x4
C535~C538 .02u x 4
D502~D505 1N5392
F502 T-800mA
F504 T-800mA
F503 T-800mA
F501 T-3.15A
F505 T-3.15A
T-501 POWER TRANS.
S701 POWER SW
C701 4700P (400V)
AC240V, 50HZ
FTZ, SPAN 改 220V50HZ
W107
W106
W116
W126
J304 SP. JACK (L)